1st INTERNATIONAL CONFERENCE
On
SOCIAL AND MANAGEMENT SCIENCE RESEARCH

THEME:
CONTEMPORARY ISSUES ON SOCIAL AND MANAGEMENT SCIENCES

Book of Proceedings
Organized by the Faculty of Social and Management Sciences, Northwest University Kano, Nigeria
4th to 6th October, 2016 at City Campus, Northwest University Kano

Supported by:
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Edited by Dr. Abubakar S. Garba
Vision
“To be a world class citadel of learning that provides practical education directed towards the training of highly knowledgeable, skilled and disciplined citizens”

Mission
“Provide educational training, research and community service for development taking cognizance of the cultural heritage of the host community”
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Aknowledgment

On behalf of the entire Faculty members, the Local Organization Committee of 2nd International Conference of the Social and Management Sciences Research, wish to express its propound and sincere gratitude and appreciation to numerous people and organizations for supporting the conference morally and financially. We wish to acknowledge the financial and material support from Azman Air services Ltd, Security and Exchange Commission, Seven Up Bottling Company, A.U Ventures. We are also indebted to appreciate the contribution of our esteem participants who have presented their papers and make the Conference not only interested but highly successful.

The Organization Committee also appreciated the contribution of Prof. Danbala Danju (MD, Bank of Agricultural)Chairman of the Occasion; Hassan Usman (MD Jaiz Bank Plc) Keynote Speaker; Prof. Dahiru H.Balami (Dean, Faculty of Social Sciences, UNIMAID) Lead Paper Presenter.

It is worthy to acknowledge and appreciate the support of the University Management and other University staff who have supported the Conference. Finally, our sincere appreciation to those who have contributed in one way or the other, but their names were not mentioned. Thank you all and God bless you.

Dr. Aminu Yusuf Usman
Chairman
Conference Organising Committee.
History, Development and Future Projection of the University

The increasing demand for access to University education by secondary school leavers necessitated the establishment of an additional University in the State. In order to address this issue, the Kano State Government under the leadership of Governor Rabiu Musa Kwankwaso, FNSE decided to establish a second State University in the State (City University Model).

Subsequently, a Technical Committee under the Chairmanship of Prof. Lawan AlhassanBichias was inaugurated by His Excellency, Governor Rabiu Musa Kwankwaso FNSE on Thursday 24th November, 2011 at the Ante-Chamber, Government House, Kano and charged it with the responsibility of articulating a blue print for the project. An Academic Brief along with the draft law for the establishment of the University were prepared by the committee. Also, the future Academic Plans and the physical plan of the University were all developed.

The Technical Committee submitted its report to the Government, which His Excellency, Governor Rabiu Musa Kwankwaso presented to the State House of Assembly for the legal backing to facilitate the establishment of the University. The National Universities Commission (NUC) on Tuesday, 27th March, 2012 officially granted permission for the establishment of Northwest University, Kano as the 37th State University and the 123rd University in the Nigerian University System.

With this development, Governor Rabiu Musa Kwankwaso FNSE inaugurated an Implementation Committee of the University on Tuesday, 27th March, 2012 at Aminu Kano House, Abuja. The Implementation Committee headed by Prof. Hafiz Abubakar was mandated to work out all the requirements for the smooth takeoff of the institution including the appointment of the Principal Officers, Founding Deans, Academic and Non Academic Staff, admission of the 1st set of students, production of staff conditions of service, students examination regulations, curriculum among others. The Committee established four take-up Faculties namely the Faculty of Education, Humanities, Social and Management Sciences and the Faculty of Science. A total number of 14 academic departments with 28 programmes were approved for the University by the National Universities Commission.

The development of the academic structure of the Northwest University was divided into phases. This shall be the core strategy of the University in ensuring that its academic programmes attain the level of a world class University. A 20-year four-phase of academic development was envisaged for the Northwest University. At the end of the 20-year period, it is expected that all Faculties, Departments and Programmes shall be established with their full academic programmes. Each phase of the academic development of the University shall be for a period of 5 years and it shall be marked by the establishment of new Faculties, Departments and/or Academic Programmes. The phases were designed and enumerated as follows:-

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<th>Phase</th>
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<tr>
<td>Phase 1</td>
<td>5 years</td>
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<tr>
<td>Phase 3</td>
<td>5 years</td>
<td>2022/23 – 2026/27</td>
</tr>
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Phase 4  5 years  2027/28 – 2031/32

The Northwest University was designed as a faculty-based system for the development of its academic structure. Each faculty shall have related departments under its mandate area and the departments shall have academic programmes under them.

It is planned and envisaged that the Northwest University shall, at its optimum growth after 20 years of establishment, have 12 faculties with 71 departments running 267 programmes at both Undergraduate and Postgraduate levels. It shall also have two schools namely School of Post Graduate and School of General and Entrepreneurship study to cater for the needs of Postgraduate, Remedial, General Studies and Entrepreneurship.

Protocol

It is my sincere honor and privilege to welcome our invited guests and participants to the first international conference organized by the Faculty of Social and Management sciences, Northwest University Kano. The Faculty of Social and Management Sciences is one of the founding faculties which started at the inception of the University in 2012. The Faculty currently has four departments running five academic programs; namely, B. Sc Accounting, B. Sc Business Administration, B. Sc Entrepreneurial Studies, B. Sc Economics and B. Sc Geography. We currently have a total of 78 academic staff at various ranks and 16 non-teaching staff.

Your Excellency Sir, ladies and gentlemen, the Faculty of Social and Management Sciences in discharging part of its primary mandate of teaching, research and community service has instituted an annual international conference to create forum for discussing research outputs in the areas of social and management sciences. With profound gratitude to Almighty Allah, today we gathered here to mark the beginning of such conferences. The theme of this year (maiden edition) conference i.e Contemporary Issues and Challenges in Social and Management Sciences was intentionally chosen to provide a broad base platform for academics and professionals to discuss findings of their research, share ideas and come up with the way forward on the current issues and challenges confronting the world today.

In this conference over 150 abstracts were received on various issues such as corruption, poverty and rural development, Unemployment, insecurity and terrorism, human trafficking, migration, climate change, natural resources and environment, business management, marketing, entrepreneurship, accounting and finance, Islamic banking, capital market and real sector development etc.

To achieve optimum result, the conference presentations were broken down into 20 parallel sessions in which group of participants with similar issues are put together to brainstorm their research outputs. Apart from the main conference activity, we have also conducted a pre-conference workshop on writing and publishing scholarly article in eminent journals to create opportunity to particularly young academics to learn how to write and publish their works. Of course, this is motivated by the popular slogan we publish or we perish. At the end of this conference, it is our ardent desire to select good papers presented for the purpose of publishing them in our proposed journal i.e Northwest Journal of Social and Management Science Research.

In conclusion, I would like on behalf of the faculty to thank our special guest of honor His Excellency Dr. Abdullahi Umar Ganduje ably represented by his deputy and honorable Commissioner of Education, Science and Technology Prof. Hafiz Abubakar. Our Sincere thanks also to the Chairman of this Occasion Prof. Danbala Danju (MD/CEO Bank of Agriculture), the Keynote presenter Hassan Usman (MD/CEO Jaiz Bank Plc) ably represented by Dr. Nuraddeen Liman and our lead paper presenter Prof. Dahiru Hassan Balami for accepting our invitation to participate in today’s event. I would also like to thank our numerous participants who have come from near and far in response to our call to present their papers in this conference. It is our hope that you will have fruitful deliberations during
the conference and have sobering reminder of the conference and Northwest University after
the conference.

Let me use this opportunity to appreciate the support of individuals and organizations to the
successful of hosting of this event. Our appreciation and sincere thanks goes to Azman Air
Services ltd., AUB Ventures, 7up Bottling Company, SKY Technical and Construction Co.
Ltd., and BBY Sack co. ltd. I will not end this remarks without showing our deep
appreciation and sincere gratitude to the University management for their moral and financial
support right from the beginning up to this stage.

We therefore wish our invited guests and all participants a journey mercies back to their
respectively destinations. Thank you and god bless you all.
THE COMMUNIQUÉ OF THE MAIDEN ANNUAL INTERNATIONAL CONFERENCE ORGANIZED BY THE FACULTY OF SOCIAL AND MANAGEMENT SCIENCES, NORTHWEST UNIVERSITY, KANO HELD BETWEEN THE 3RD TO 6TH OCTOBER, 2016

The conference with the theme “Contemporary issues in Social and Management Science Research” was declared open by His Excellency, the Executive Governor of Kano State, Dr. Abdullahi Umar Ganduje OFR, represented by his Deputy Prof. Hafiz Abubakar MFR. The conference was preceded by Keynote address by the MD/CEO JAIZ Bank Alh. Hassan Usman represented by Dr. Nuraddeen A. Liman, where the Islamic perspective to developmental issues was highlighted and specific recommendations relevant to Nigeria problem were proffered. Also a lead paper presented by Prof. Dahiru Hassan Balami discussed the theoretical and practical applications of Unconventional Monetary Policy (UMP) and its implications to Nigeria’s development

During the conference, over 150 papers were presented by scholars from across Nigerian universities, Niger Republic and Malaysia among others covering topics such as Islamic economics and finance; economic planning, growth and development; poverty alleviation strategies; marketing, business and supply chain; natural resources and environment; entrepreneurship education and development; rural poverty and issues in rural development; capital market and real sector development; business and human resources management; micro-enterprises and small business management; local government, social and public administration; insecurity, ethnicity and social vices; climate change, power and energy; development and corruption.

The conference recognizes the enormous achievement of the Federal Government of Nigeria (FGN) in tackling the Boko haram menace. It also recognizes the role of the Treasury Single Account (TSA) in curving public corruption and waste in Nigeria.

After extensive deliberations, the conference made the following recommendations;

- Monetary policy and its impact on exchange and interest rates were recognized as major issues that require pragmatic approach in this period of economic recession.
- More researches are needed in Islamic economics and financial system.
- More focus to real sector development, so as to fast-track the development process.
- Government should have a more coordinated approach to its poverty programmes based on sustainable micro-credit, cooperatives societies, informal sector development, and extension services to rural farmers.
- Enhancing value chain with respect to agricultural commodities.
- Environmental issues should be factored in our developmental goals.
- Entrepreneurial orientation strategies are needed to reduce poverty and unemployment in both rural and urban settings of the country.
- More infrastructural and income diversification in the rural areas.
- Need for transparency in Corporate Governance.
- Government should pay more attention to human capital development
- Training and retraining of micro-enterprise in book-keeping, marketing and the value chain management.
- Government should focus on the role of local government in rural income diversification to reduce rural poverty and rural urban migration.
• Government should pay attention to ethnic militancy, internal terrorism and youth restiveness, which have become major threats to national development.
• Government should emphasize sustainable development in alternative energy sources and
• Enforcement of existing policies in safeguarding investors’ confidence in the banking sector has become more imperative than ever before.

Signed
Prof. Aliyu Baba Nabegu                  Mukhtar Shehu Aliyu, PhD
Chairman Communiqué Committee            Secretary
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Abstract
It is a fact that the art of Teaching does give psychological satisfaction which enjoin the teachers to remain on the job. With the emergent of globalization and increases of environmental and economic needs of having qualitative education among the teeming youth, pressure group calls for enhancement of teachers’ job performance. Effective teachers’ performance results to qualitative education of students that is manifested in their success at external examinations such as WAEC and NECO. It is observed that achieving effective teachers’ performance is a function of job compensation. While monetary reward has been the dominant need for teachers to enhance their job performance, it is always suffering from many setbacks due to other factors such as the large size of teachers’ population which their employers used as excuse for their inability to pay teachers handsomely. With the continued hash economic financial difficulties Nigeria is experiencing, non-monetary compensation package is an option for enhancing Teachers’ job performance. This paper aims at examining Effects of Employment Non-Monetary Compensation Package on Teachers’ Job Performance in Nassarawa Zone of KSSSSMB, Kano State, Nigeria. 388 respondents are administered with the items of questionnaires from the population of 13056 teachers in the Zone using convenient sampling technique. The constructs: Fringe Benefit, Work Condition and Recognition (Job Motivator) are measured against Teachers’ Job Performance. The three (3) hypotheses are tested using Multiple Regression Model in SPSS 16. The findings show that work condition and job motivator is factors causing teachers’ job performance. They have positive small effect. But, fringe benefit is found to be not a factor causing performance but have positive small correlation with teachers’ job performance. The paper recommends use of school revenue to provide non-monetary compensation package, and conclusions are drawn from the study.

1.0 Introduction
Advent of modern democracy and globalization has brought a paradigm shift in a way public institutions (schools) deliver the welfare services to the public. Previously, public institutions such as educational institutions were hardly faced with high competitive challenges to deliver value in their service delivery comparable to what was obtainable in the
business institutions. Today’s environment, however, has brought high expectations among the populace allowing the stakeholders: civil societies, communities, the internet online reporting and journalism etc gaining more power to criticize how service delivery/outcome is offered by especially, the secondary school education whose public demand is high. Secondary schools students’ performance at external examination (WAEC/NECO) becomes a subject of discussions in the polity and the bases for comparing government/public institutions performance delivery. To Politian, public servant and administrators whose primary aim is to win public favor and support, usually faced with high criticism of not performed better in education if the external examination results of the students in their respective states is not good. This results them to mount pressures on the administrators of secondary schools and teachers to enhance their performance. Although, there are many determinants of teachers’ job performance, their compensation has been the central that many stakeholders pay attention to. It is always argued that to increase job performance of teachers, monetary reward should be increased. The view is always welcome by even the teachers. But, the public administrators do always propose opposite assertion that the present teachers’ salary scheme is a good reward system or that the teachers cannot be paid high monetary reward due to their large size and the world economic and financial challenges of today’s Nigeria situation which cannot accommodate the increases.

Therefore, human resources management literatures have stated that to compensate your employees, management has two options: monetary compensation and non-monetary compensation packages. Since monetary reward seems to be the subject of concern which from the present reality is unattainable, the paper sees non-monetary compensation package as an option in this Nigerian economic recession situation of 2016. The position is justifiable especially in the context of Kano state public secondary schools. Because, Kano state government educational policy of allowing all the public secondary schools to collect education support charges which can now provide a source of revenue to schools that can be used in stimulating and reinvigorating teachers’ job performance through provision of non-monetary compensation package without waiting for government budget. The teachers’ job performance, as observed by the paper, is a function of fringe benefits on the job, conduciveness of working environments to teach and job motivator which is demonstrated in term of superiors’ recognition of teachers’ effort on the job. It is observed that while the public schools management have had the capability to provide these non-monetary compensation package (fringe benefit, work condition and job motivator), in order to boost teachers’ job performance which is meeting needs of the government and achieving the educational goal of society, public schools management might have still waited and relied on the government to provide for more monetary rewards that is not feasible given the current economic situation faced by Nigeria. Therefore, the paper measures the effects of Fringe benefit, work condition and job motivator on the teachers’ job performance in Kano state public secondary schools, Nigeria.

1.1 Purpose of the Paper
The aim of the study is to examine effects of Employment Non-Monetary Compensation Package on Teachers’ Job Performance in Nassarawa Zone of Kano State Senior Secondary School Management Board (KSSSSMB), Kano State, Nigeria which is specifically stated as follows:

- To evaluate the extent to which fringe benefits have significant influence on the teachers’ performance at Nassarawa Zonal Education Area.
- To determine the extent to which teachers working conditions have significant influence on teachers’ performance at Nassarawa Zonal Education Area.
To assess’ the extent to which job motivator (recognition) have significant influence on teachers performance at Nassarawa Zonal Education Area.

However, as a logical guess, hypothesis in a study replaces the possibility in the occurrence of an event under investigation. It offers solution to the research questions and tries to establish a relationship or difference between the variables involve in the investigations. It is a tentative proposition suggested as a solution to a problem or as an explanation of some phenomenon (Bello & Ayuba, 2015). The following hypotheses are hereby formulated for the study.

1. \( H_0_1 \): Fringe Benefits have no significant influence on teachers’ performance at Nassarawa Zonal Education Area.
2. \( H_0_2 \): Teachers working conditions have no significant influence on teachers’ performance at Nassarawa Zonal Education Area.
3. \( H_0_3 \): Job motivators have no significant influence on teachers’ performance at Nassarawa Zonal Education Area.

2.0 Literature Review, Conceptual and Theoretical Framework

Many literatures (Armstrong, 2003; Gogari, Boroujeni & Hosseini, 2013) on Human Resource Management use compensation to be synonymous to rewarding employees in the organization and some time they view it differently. This goes the same way when describing the terms that demonstrate the categories or types of compensation package: financial reward and non-financial reward, direct and indirect, intrinsic and extrinsic reward, monetary and non-monetary reward and so on. This study maintains the categories/type of compensation package to be monetary compensation package (MCP) and non-monetary compensation package NMCP.

The studies (Osibanjo, Adeniji, Falola & Heirmac, 2014; Gogari, Boroujeni & Hosseinipour, 2013) that have studied the impact of compensation packages on employees’ performance reported both monetary and non-monetary compensation package having strong positive correlation with the job performance. Hameel, Ramzan, Zubair, Ali, Arslan (2014) found weak positive relationship between non-monetary compensation (incentive, recognition, health allowance etc.) on the performance of banking sector employees. Yousaf, Latif, Aslam & Saddiqui (2014) found out that the monetary compensation package impacted more on the teachers’ performance due to inflation in the study area than the NMCP. Yamoah (2013) discovered that compensation package cause employees’ productivity. Their study on public secondary school teachers in Lagos, Wasiu & Adebajo, (2014) also found out a significant relationship between salary package, job allowance, in-service training of teachers, involvement of teachers on decision making, promotion and transfer and teachers’ job performance. Mabindisa (2013) reported that the unhealthy working condition did cause staff turnover and possibly work performance. Peterson & Luther (2006), for more than ten (10) years discovered that the non-financial incentive of recognition was closely associated with employees’ performance. They even argued that the construct of recognition of employees by authority did not enjoy extensive theoretical foundation as compared to money pay as salaries. Negussie (2014) found out in his research that there were dissatisfaction of teachers and teachers’ job poor performance due to poor motivational factors such as salary, rent allowance, fair treatment of teachers by the school authority and protection against undue transfer. Mehta, Kurtti & Dhankhar (2014) found out that in addition to pay compensation, other factors such as working condition, flexible working hour, cooperative teams, good bosses, culture and value of organization did affect teachers’ job performance.

It is against these positions that this paper earmarks fringe benefit, work condition of teachers and job motivator/recognition of teachers’ effort to be measured against teachers’ job performance. This position is considered, although in line with previous studies, but
equally with due regard to the environmental and economic situations in the area under study which calls for new paradigm shift on how to influence favorable teachers’ job performance. This is to meet the yarning of government and society that always cry for the need to have improvement in the educational system of the state, specifically teachers’ performance.

2.0 Compensation Package and Reward System

Judith (2015) reported that compensation entails all form of pay or reward going to or given to employees arising from their employment. Osibanjo, Adeniji, Falola & Heirsmac (2014) argue that compensation package consists of or provide a basic features of activities that satisfy employees’ on the job and it includes these components: salaries, incentives, promotion, recognition etc. Judith (2015) maintains that none-monetary compensation package which represents the cost incurred by the organization does provide activities for better work life and more attractive convenient place to do the job.

In their submission, AbdulRahim & WanDoud (2012) present that the concept of reward system as the important tool for the use of management to channel employees’ motivation in a desired ways. They see it as any strengthened behavior that followed immediately by the positive reinforcement. Reward is an external agent administered when a desired act/task is performed which has controlling and informational properties, (Dee & Wyckoff, 2013). It is an organization’s integrated policies, processes, practices, structure and procedures providing and maintaining appropriate type and level of pay, benefits, and other forms of reward. It is a process of developing and implementing strategies, policies and systems which help school to achieve its objectives by obtaining and keeping the people it needs and increase their motivation and commitment. The aim of reward system is to attract retain and motivate employees to support attainment of organization’ strategic goals.

Therefore, compensation as a human resource function, deals with every type of reward, an employee receives in exchange for performing organizational task with a desired outcome of worker who is attracted to the job, satisfied and motivated to do an efficient and effective job for the employer. It a double input output exchange processing between the master and the servant. American Compensation Association (ACA) in 1995 defines compensation as cash and non-cash remuneration provided by the employer for the services rendered by employees. Compensation can be direct or indirect, intrinsic or extrinsic, monetary or non-monetary. This paper studies only non-monetary compensation package (NMCP).

1.2.1 Fringe Benefit as Non-Monetary Compensation Component

It is a supplementary reward for the job not worked for. It is given to all employees irrespective of their work effort or different performance recorded on the job. Nawaz & Yasin (2015) see fringe benefit as an indirect form of compensation related to the performance. It is called benefit as employees use to stand for its benefit in form of use of company car, use of time, paid continuing education etc. it provides benefits to employees that represent cost to organization. Objective of fringe benefit are to boost up employee morale, to provide qualitative work environment and work life, to create sense of belongingness among staff etc. it is not usually linked to employees’ performance directly. It can be mandatory statutorily or optional voluntarily. Mandatory fringe benefits include: social security, employees’ welfare etc. But, the optional fringe benefits are health insurance, retirement plan, recreational plans etc. The principle of fringe benefit is to be capable of satisfying real needs of employees, to be cost effective to organization and to be educative enlighten staff on how the benefit to be enjoyed and used. The package should be innovative, flexible and harmonized to give feeling of equity and fairness among employees.
1.3.1 Work Condition as Non-Monetary Compensation Component

In their study, Yousaf, Latif, Aslam & Saddiqui (2014) state that working environment of employees lead to increased work commitment and productivity. It makes the staff to have feeling the reason for doing the job and get pleasure from doing it. It is characterized with adequate availability of working resources such as free ventilated if possible air conditioned offices/staffroom, well furnished furniture for staff comfort to sit and work, restrooms, dormitories, good canteen, washrooms and so on. It is argued that poor ventilation, seating furniture, lightning and noise cause anxiety and decrease employees’ output. Lack of privacy and communication barrier reduce staff productivity. Lack of praise, recognition and promotion in the workplace affect motivation. The presence of troublesome colleague or negative employee deteriorates working relationship that equally influences employees’ performance. Relationship among coworkers, equal opportunities to all staff and promotion, responsibility and autonomy makes the work environment more conducive for efficient and effective job performance to be attained.

1.3.2 Job Motivator/ Recognition as Non-Monetary Compensation Component

Nawaz & Yasin (2015) reported a classic work of Herzberg & his Colleague (1957) on their famous two factors (Hygienic and Motivator) theory of motivation which explains job no satisfaction, job dissatisfaction and job satisfaction. They identified that pay was ranked sixth next to others: challenging work, working condition, sympathetic to employees’ personal problems, recognition and appreciation of job well done. Judith (2015) explains that recognition of staff is an act or activity that shows appreciation for the job well done. It can be formal or informal scheme, financial or non-financial scheme. But, it has to be meaningful to the recipient. Oral verbal prize, prize on company’ journal, letter of appreciation, gift, holiday trip, day off, meals out etc are good examples of employee recognition. Involvement in the management decision or seek of employee opinion on what to decide on can be seen as recognition of staff. It should be noted that the timing and frequency of the recognition to be done is of importance and to be done as at when due. It should not be automatic.

2.0 Teachers’ Job Performance

Work performance of a teacher is a relative strength of him to achieve the objectives, goals and mission of the school. It is a product of teaching effectiveness which has been accepted as a multidimensional construct which is measured in term of variety of different aspects of activities such as subject mastery, effective communication, lesson preparation and presentation etc. Effective teaching is a significant predictor of students’ academic performance achievement. Although, other factors: socio-economic background, family support, intellectual aptitude of students, personality of the students, self confidence, previous instructional quality of teachers instruction, students’ attitude to learning and so on do influence students’ examination score. That is why, Negussie (2014), reports that students’ achievement score is not an indicator of teachers’ job performance effectiveness. Work performance is about establishment of standard indicator to be achieved which involves activities that ensure organizational goals are achieved and consistently met in an efficient and effective manner, Kim (2011). It involves having shared vision of organization, management style, employees’ involvement, incentives and reward, competence framework, teamwork, education and training and finally, attitude and dialogue.

Factors that influence teachers’ job performance are: students’ characteristics and behavior, school characteristics and its climate, teachers’ characteristics, class size, peer group and colleagues, infrastructure in terms of instructional materials and basic teaching tool, knowledge and educational pedagogy, experience and time being in the profession, rotation and turnover, sense of professional calling, salaries, special incentives, level of
inclusion in the decision making, technical assistance and financing, teachers’ recognition by school authority, students, parent and community. General factors can be commitment to organization, selection, personality, attitude, skill, ability, knowledge, motivation, compensation, leadership, structure of walking units, culture, system and procedures, job design, empowerment and opportunity to perform, (Negussie, 2014; Mabindisa, 2013). All these factors facilitate or hinder job performance of an employee.

Employees’ job performance can be contextual or task. Contextual job performance are those activities which employees are doing but are not necessarily a part of contractual provision that he/she contracted to do but that which are necessary in the achievement of the organizational goals. The work is dispositional and personality based. Task job performance, however, are those actual activities that the employees are hired to do on a specific job related activities. It is cognitive based, (Mabindisa, 2013). Teaching job requires worker who is motivated to do and achieve both contextual and task performance.

Therefore, a performed teacher, according to Negussie (2014), demonstrate these features: he is the one who organizes classroom, provide an environment that fosters an interest in learning, develop classroom rules with students, maintain safe and orderly classroom, treating students fairly and equitably, makes use of effective teaching techniques and instructional materials, plan lessons, present new material clearly, help students to connect with new learning and previous learning and finally, provide guided and independent practice for new material taught. A motivated teacher does show passionate and commitment to do best for the students, demonstrate pedagogical content knowledge, use of varieties of models of teaching and learning, collaborative working style with colleague and reflective practice on the job.

4.0 Theoretical Framework of the Paper

Many motivational theories fit the study among them are B. F Skinner’s Reinforcement Theory, Maslow theory of Needs Adam’s Equity theory and Herzberg Two Factors theory. Wei & Yazdanifard (2014) reported B.F. Skinner’s Reinforcement Theory, a learning theory which explains reinforcement as stimuli used to produce desired behavior with different occurrences and schedules enhancing job performance and productivity of an employee. The theory is a technique that elicits and strengthens new behavior by adding rewards and incentive. It is applied through fringe benefit, promotion and pay. Needs theory and two factor theory also explain relevance of working environment. The relevant of staff work effort recognition on the employee’ job satisfaction is explained by two factors theory. Thus, the link between non-monetary compensation packages with teachers’ job performance is the reflection of the equity theory of motivation position. Therefore, this paper adopts the position of these theories.

4.0 Methodology of the Study

This research is purely quantitative research. It is designed for fact findings that describe the phenomena under study. It employed exploratory survey design as an avenue to achieve the research objectives which are in line with the research question raised. This enables ascertaining the veracity of the study’s hypotheses formulated. Three independent explanatory variables (Fringe Benefits, Work Condition and Recognition) are identified which are measured against the dependent variable: Teachers’ Job Performance. Primary source of data to be used is questionnaire which serves as the instrument of data collection. The questionnaire is subjected to validity test before employed in to full administration to the subjects. The data collected from the respondents is subjected to reliability test.

The population of study is 13,053 teachers. The sample size of the study is arrived at using the Yard’ Formular (1973)Yard’s (1973) formula i.e
\[ n = \frac{N}{1+N(e)^2} = 388 \]

Where; \( n \) = sample size; \( N \) = Finite Population; \( e \) = Level of significance = 5% or (0.05); \( l \) = Constant

The research employs accidental sampling technique as the method of selecting 388 respondents (at 5% margin of error and 95% level of significant) from the population of the study under the criteria that only those teachers that voluntarily accept to fill the questionnaire are included.

4.1 Validity and Reliability of the Research Instrument

The validity of the questionnaire was tested by given it to the experienced academics, principals and teachers to assess and determine the face and content validity of the instrument. The criteria employed in the test were: readability of the questions, language level, and the adequacy of the question and the content coverage of the subject matter. After restructuring and correction, the final copy of the questionnaire was produced for administration. The questionnaire scale is 5 points Likert scale of strongly agreed (5) to strongly disagreed (1).

The reliability of the instrument was tested using Cronbach’s Alpha coefficient in SSPS 17. For the overall items in the questionnaire is 0.602. It was equally found 0.235 for the Fringe Benefit construct; 0.681 for the work condition construct; 0.191 for the Job Motivator construct and 0.754 for Performance (dependent variable) construct. This indicated that the instrument was reliable as it met the minimum benchmark of 0.5, but two independent variables violate the rule.

4.2 Normality and Multi-collinearity Test of the Data Collected

It is essential to test the normality position of the data in order to satisfy the parametric assumption of multiple- regression. The Skewness and Kurtosis measurement calculated in the Table 1 indicates that the data faces some challenges on its symmetric position. The skewness values are less than ±1 of only two construct: job condition and performance confirming the normality test of the data. The fringe benefit construct and job motivator are having high positive skewness and Kurtosis more than ±1 which suggests peak of the score and have violated the normality test rule. But, job condition of teachers and job performance constructs are within the purview of the rule and constitute normal data capable of using parametric test.
Table 1 Normality test

<table>
<thead>
<tr>
<th>N</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>Std. Error</td>
</tr>
<tr>
<td>FRINGEBENEFIT</td>
<td>237</td>
<td>3.693</td>
</tr>
<tr>
<td>JOBCONDITION</td>
<td>236</td>
<td>-.507</td>
</tr>
<tr>
<td>JOBMOTIVATOR</td>
<td>234</td>
<td>1.795</td>
</tr>
<tr>
<td>PERFORMANCE</td>
<td>226</td>
<td>-.843</td>
</tr>
</tbody>
</table>

Valid N (listwise) 225

Source: Generated by the Authors using SPSS16.0, from Questionnaire Response, 2016

The Multi-collinearity position among the explanatory variables shows that all the 3 variables are within acceptable level. Table 2 presents all the 3 variables as having less than 0.6 variable proportion which is accepted level of collinearity, dimension 2 and 3 present 0.79 (Fringe Benefit) and 0.76 (job motivator). The result is stating that the requirement of regression test is herewith met.

Table 2 Collinearity Diagnostics

<table>
<thead>
<tr>
<th>Mode</th>
<th>Dimension</th>
<th>Eigenvalue</th>
<th>Condition Index</th>
<th>Variance Proportions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Constant)</td>
<td>FRINGEBENEFIT</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>3.888</td>
<td>1.000</td>
<td>.00</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>.057</td>
<td>8.254</td>
<td>.00</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>.029</td>
<td>11.565</td>
<td>.03</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>.026</td>
<td>12.180</td>
<td>.97</td>
</tr>
</tbody>
</table>

a. Dependent Variable: PERFORMANCE

Source: Generated by the Authors using SPSS16.0, from Questionnaire Response, 2016

Furthermore, the teachers’ characteristics as presented in the table 3 below indicate that majority are male and only 20.5% are female. More than 65% of the respondents are at 25 to 36 years age brackets. This implies that the teachers participate in the study are largely youth. More than 80% have possessed either NCE or B.ed/B.Sc minimum qualification for teaching. Majority of the teachers are married (61.1 %) and there are sizeable number of single that are yet to marry. 66.5% of the respondents are classroom teacher, foot solders that interact with students and working environment every day. Similarly, more than 54% earn a salary income less than N50, 000.

Table 3 Sample Structure/TEACHERS CHARACTERISTICS
5.1 Data Analysis and Results

The summary output of the multiple-regression begins with the descriptive statistic which states that 239 out of 388, 61.60% respondents’ response is used in running the result. It involves four constructs in which one (Teachers’ Job performance, N=226) is dependent variable and the other three are independent variables Fringe Benefit (N=237), work condition (N=236) and job motivator (N=234). Table 4 reports summary of ANOVA which shows that the overall model is found to be statistically significant. The calculated F-value=0.000 is less than the tabulated 5%. This confirms that the 3 explanatory variables are statistically capable of predicting the dependent variable.

Source: Generated by the Authors using SPSS16.0, from Questionnaire Response, 2016

<table>
<thead>
<tr>
<th>CHARACTER</th>
<th>DEMOGRAPHIC VARIABLES</th>
<th>FREQUENCY</th>
<th>SAMPLE %</th>
<th>CHARACTER</th>
<th>DEMOGRAPHIC VARIABLES</th>
<th>FREQUENCY</th>
<th>SAMPLE %</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENDER</td>
<td>MALE</td>
<td>190</td>
<td>79.5</td>
<td>QUALIFICATION</td>
<td>WAEC/OTHER</td>
<td>13</td>
<td>5.4</td>
</tr>
<tr>
<td></td>
<td>FEMALE</td>
<td>49</td>
<td>20.5</td>
<td>OND/NCE</td>
<td>79</td>
<td>33.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>239</td>
<td>100</td>
<td>TOTAL</td>
<td>239</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>AGE</td>
<td>18 – 25Years</td>
<td>35</td>
<td>14.6</td>
<td>HND/B.Ed/B.S</td>
<td>121</td>
<td>50.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>26 – 35Years</td>
<td>105</td>
<td>43.9</td>
<td>MBA/ACA/</td>
<td>8</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>36 – 45Years</td>
<td>54</td>
<td>22.6</td>
<td>M.Sc/P.hD</td>
<td>16</td>
<td>6.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>46 – 55Years</td>
<td>40</td>
<td>16.7</td>
<td>OTHERS/MISSING</td>
<td>2</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>56Years and above</td>
<td>5</td>
<td>2.1</td>
<td>TOTAL</td>
<td>239</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>MARITAL STATUS</td>
<td>SINGLE</td>
<td>89</td>
<td>37.2</td>
<td>Occupation Status</td>
<td>TEACHER</td>
<td>159</td>
<td>66.5</td>
</tr>
<tr>
<td></td>
<td>MARRIED</td>
<td>146</td>
<td>61.1</td>
<td>PRINCIPAL</td>
<td>9.2</td>
<td>9.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SEPARATED</td>
<td>3</td>
<td>1.3</td>
<td>IN-SERVICE</td>
<td>37</td>
<td>15.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>WIDOWED/DEVOCED</td>
<td>0</td>
<td>0</td>
<td>ADMINISTRATOR</td>
<td>19</td>
<td>7.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MISSIND</td>
<td>1</td>
<td>0.4</td>
<td>OTHERS/MISSING</td>
<td>2</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>239</td>
<td>100</td>
<td>TOTAL</td>
<td>239</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>MONTHLY INCOME LEVEL</td>
<td>BELOW N25,000</td>
<td>59</td>
<td>24.7</td>
<td>TOTAL</td>
<td>239</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N25,001-50,000</td>
<td>70</td>
<td>29.3</td>
<td>TOTAL</td>
<td>239</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50,001-75,000</td>
<td>65</td>
<td>27.2</td>
<td>TOTAL</td>
<td>239</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>75,001-100.000</td>
<td>26</td>
<td>10.9</td>
<td>TOTAL</td>
<td>239</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>100,001 and ABOVE</td>
<td>19</td>
<td>7.9</td>
<td>TOTAL</td>
<td>239</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Source: Generated by the Authors using SPSS16.0, from Questionnaire Response, 2016
Table 4 ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>777.104</td>
<td>3</td>
<td>259.035</td>
<td>45.123</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>1268.676</td>
<td>221</td>
<td>5.741</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2045.780</td>
<td>224</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), JOBMOTIVATOR, FRINGEBENEF, WORKCONDITIONN
b. Dependent Variable: PERFORMANCE

Source: Generated by the Authors using SPSS16.0, from Questionnaire Response, 2016

In the model summary presented in Table 5, the multiple regression result presents that the coefficient R=0.616 using all the predictors; The R²=0.380 and adjusted R²=0.498 indicates that the level of explanation between Teachers’ Job Performance and Fringe Benefit, Work Condition and Job Motivator is having average effect at R but low effect at R². This signifies that the Teachers’ Job Performance is influenced only if more than average or high effort is achieved given the presence of explanatory variables.

Table 5 Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R Square Change</td>
<td>F Change</td>
</tr>
<tr>
<td>1</td>
<td>.616a</td>
<td>.380</td>
<td>.371</td>
<td>2.39596</td>
<td>.380</td>
<td>45.123</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), JOBMOTIVATOR, FRINGEBENEF, WORKCONDITIONN
b. Dependent Variable: PERFORMANCE

Source: Generated by the Authors using SPSS16.0, from Questionnaire Response, 2016

The standardized and un-standardized Beta in the Table 6 shows the level of association of each independent explanatory variable with the dependent variable. It presents identified regression equation which helps in understanding the predictive power of each explanatory variable. For the predictor: Fringe Benefit; \( y = 7.428 + 0.008x \); Work Condition; \( y = 7.425 + 0.379x \) and Job Motivator; \( y = 7.425 + 0.199x \). These equations can be used separable in determining the predictor values of the respective explanatory variables.

Table 6 Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
<th>95% Confidence Interval for B</th>
<th>Correlations</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Lower Bound</td>
<td>Upper Bound</td>
<td>Zero-order</td>
</tr>
<tr>
<td>(Constant)</td>
<td>7.425</td>
<td>.853</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRINGEBENEF</td>
<td>.008</td>
<td>.044</td>
<td>.010</td>
<td>.189</td>
<td>.850</td>
<td>-.078</td>
<td>.094</td>
</tr>
<tr>
<td>WORKCONDITIONN</td>
<td>.379</td>
<td>.053</td>
<td>.444</td>
<td>7.161</td>
<td>.000</td>
<td>.274</td>
<td>.483</td>
</tr>
<tr>
<td>JOBMOTIVATOR</td>
<td>.199</td>
<td>.047</td>
<td>.258</td>
<td>4.230</td>
<td>.000</td>
<td>.106</td>
<td>.292</td>
</tr>
</tbody>
</table>

Source: Generated by the Author using SPSS16.0, from Questionnaire Response, 2016
Furthermore, the standardized beta in Table 6 acts as a correlation coefficient. It determines the extent of correlation of independent variables with the dependent variable. The results show that Fringe Benefit is positively correlated with the Teachers Job Performance. It has 10% capability to cause favorable Job Performance. It is small effect but statistically significant. Work Condition is equally positively correlated with the Job Performance. It has 44.4% capability to cause the favorable Job Performance. It is statistically significant with the small effect. In conclusion, however, Job Motivator is 25.8% positively correlated with the Job Performance which is equally small effect but statistically significant.

5.2 Test of Hypothesis

Three hypotheses were formulated in the study. The Test presented in Table 6 was used in testing the hypotheses. HO\textsubscript{1} which states that Fringe Benefits have no significant influence on teachers' performance at Nassarawa Zonal Education Area is accepted. This is because the calculated P-value=0.850 is not less than or equal to 0.050. HO\textsubscript{2} which states that Teachers working conditions have no significant influence on teachers’ performance at Nassarawa Zonal Education Area is found to be rejected. The calculated P-value=0.000 is less than or equal to 0.050. However, HO\textsubscript{3} that states Job motivators have no significant influence on teachers’ performance at Nassarawa Zonal Education Area is also rejected. The calculated P-value=0.000 is less than or equal to 0.050. The overall result shows that Teachers’ work condition and Job Motivator cause Job Performance while Fringe Benefit is found to be not predictor of Teachers’ Job Performance.

5.3 Discussion on the Results/Findings

Close examination of the outcome of this study reveal very important position of teachers with regard to their performance on the job and the non-monetary compensation package. The model of the study indicates that non-monetary compensation package is having positive low effect on the teachers’ job performance. It does not strongly cause significant influence on the teachers’ job performance at the Nassarawa zone of KSSSSMB in Kano state. The result, on the individual construct, shows that teachers’ job performance is a function of working condition and job motivator or recognition of teachers’ effort for job achievement by the authority. Although, job motivator suffers reliability and normality challenge, the assertion (Hypothesis) confirms that recognition of teachers’ effort on the job remain significant factor influencing the performance of teachers’ on the job. This clearly justifies the view of two factors theory of motivation. Teachers that participate in this study, from the findings, indicate that working condition needs to be looked upon by the authority as a prerequisite for having enhancement on their job performance. In line with this position, the researcher observed that if the school authority can use the little revenue (education support fee) collected judiciously, can bring positive impact on the teachers working condition. The items required to make the environment conducive do not require government budget. These items such as furniture to enable teachers to sit and prepare their work comfortably, serving tea to teachers on break time, hygienic situation of staff restrooms to name but few can bring about improvement in the teachers’ job performance and by extension high academic achievement in the state. The findings also indicate that fringe benefit cannot influence teachers’ job performance. Although, the construct suffers reliability and normality challenge, the null hypothesis formulated is found to be accepted. It is already noted that the fringe benefit is administered to staff with no direct consideration to the workers’ individual performance and as such the position of equity theory hold here rejecting the view of reinforcement theory. The fringe benefit components such as use of school car, health
insurance scheme for the teachers and so on are not factors that cause teachers’ job performance.

6.0 Conclusions and Recommendation

From the study’s findings, the paper resolves as follows: that the teachers work environment is a significant factor and has positive correlation (44.4%) with the teachers’ job performance, that the recognition of teachers’ effort on the job is a significant factor and has positive correlation (25.8%) with the teachers’ job performance, that the provision of fringe benefits to teachers is not a significant factor and has positive correlation (10%) with the teachers’ job performance and in conclusion, however, non-monetary compensation package is a factor causing teachers’ job performance with positive low effect (38.0%).

It is, however, recommended as follows:

That the school authority/administrators have to use the education support charges allowed to collect by the government as the resource to uplift the standard of the teachers working condition in their school without waiting for government budget.

That the school authority should make recognition of well deserved teachers’ effort on the job as the school policy and the appreciation of effort should be guided by unbiased transparent measurement standard.

That the school authority should promote friendly working environment that can ensure teachers’ work autonomy in the school to do job professionally.

That the authority should ensure teachers involvement in the decision to run the schools or any matters that concerns teachers’ issues and problems.

That the government should give autonomy to schools to use their revenue judiciously toward solving school perennial problems and to ensure proper accounting record is kept that allow accountability and audit.

That the community should be made to be enlighten about the use of education support fees and its importance in boosting teachers’ job performance and overall educational achievement and success in the state.

That the community and school authority, even the student should embark on the campaign for showing respect to teachers and teaching profession which can serve as number one factor to make work condition of teachers friendly, conducive and free from threat both teachers’ dignity and material.
References


Judith, C (2015): *Performance Based Rewards to Teachers in Private Primary Schools in Kasarani sub-county, Nairobi County, Kenya*. MBA project submitted to the School of Business, University of Nairobi.


THE EFFICIENCY OF ENVIRONMENTAL POLICY ADMINISTRATORS ON FIRMS’ SUSTAINABILITY REPORTING IN NIGERIA

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ABSTRACT

Due to the devastating impact of global warming and rise in sea levels, the international community has now given more focus to environmental issues. In developing economies the positive effort of governments towards environmental threats, remains passive. The aim of this study therefore, is to examine the relationship between environmental disclosure and environmental agencies. Using a sample size of 67 firms operating in the Nigeria economy, Stata 13 was applied in regressing the influence of the relationships. It was discovered that a significant relationship exists between environmental reporting and environmental agencies. However, while the NSE have a direct relationship with environmental reporting, DPR/NESREA has an inverse relationship with it. Urgent action should therefore, be taken by the authorities about the negative or inefficient impact of DPR/NESREA on environmental information disclosure. This may call for a reorganization, reconstruction and reconstitution of the agencies’ policies and management on environmental issues.

1.0 INTRODUCTION

Global attention nowadays is focused more on issues like world security, recession, migration, democracy and so on. These issues have direct and immediate impacts on individuals therefore, much attention is directed towards them. However, problems that have indirect and long-run effects goes unnoticed. In recent times environmental problems like global warming and rise in sea level have attracted attention to the extent that two of the world’s developed nations (United States and United Kingdom) have seen the emergence of Green political parties. Conserving and preserving the environment is a task that must be done (Shah, 2011). Racheal Carson’s “Silent Spring” (1962) was the first to question the impact on natural resources of industrialization (Malarvizhi & Yadav, 2009). This led to the involvement of bodies such as the United Nations which, held the Stockholm conference on environmental issues in 1992 on environmental matters (Anyanwu, 2012; Asuquo, 2012). Later, the Rio de Janeiro Earth Summit (1992), Kyoto protocol on emissions reduction (1997), Johannesburg summit that reaffirms integrated reporting (2002) and the 2015 Paris climate summit which, followed were all geared towards tackling environmental
problems. Thus the stance of environmental problems as being a major global issue. The environment is currently faced with threats like energy demand and supply, waste disposal, forest loss, resource depletion and atmospheric conditions of growing magnitude (Beaudry, 2014; Creel, 2010).

Africa is dominated by some of the world’s highest number of least developed economies. Beaudry (2014) posit that 10 of the least healthy environments are found in Africa. A sign of the low priority accorded to environmental issues by Africa, is the fact that Zimbabwe only recently started environmental sustainability in the public sector (Ndamba, 2012). In South Africa, there has been evidence of lack of sustainability accountability (Chown, 2011). Because of the negative attitude to environmental issues Kasum (2010) observed that human activities in Nigeria leaves the ecosystem worse off. Environmental problems in Nigeria has been classified into two broad categories. Drought and desert encroachment in the northern parts and soil erosion, oil spillage and gas flaring in the southern region (Higgins and Frames, 2011). These two categories forms the backbone of the problem of this research. Drought and desert encroachment possess agricultural challenges which, have seen social conflicts like ethnic and religious clashes. Soil erosion, oil spillage and gas flaring on the other hand are relics of the petroleum industry that threatens the economic security of the nation state; as Nigeria is a monoculture economy with heavy dependence for revenue and foreign exchange on oil export. Put together these two environmental challenges from the northern and southern parts of the country threatens national unity.

The government have made moves to the extent of not only establishing a Ministry of Environment but also put in place environmental agencies like the Department for Petroleum Resources (DPR), National Environmental Standards and Regulations Enforcement Agency (NESREA), Forestry Agency and recently drafted the Nigerian Stock Exchange (NSE) into environmental administration. The major question here is, to what extent has these agencies or organizations gone to ensure environmental sanity in the economy? Charged with the responsibility of monitoring, regulating and enforcing environmental rules, guidelines and standards; these agencies are expected to at least lay a solid foundation for environmental accountability from both individuals and corporate bodies. Has their roles with regard to environmental issues being effective and efficient? What is the relationship between these agencies and environmental reporting compliance?

Several researches has conducted on environmental reporting relationship with different company characteristics like profit, firm size, leverage, firm age, audit firm, board size, board composition, environmental experts, etc.; and other variables based on different underpinning theories. Branco and Rodrigues (2007), Rajab (2009) and Al-Htaybat (2014) are some of the studies that have examine profitability’s relationship with reporting from different perspectives basing their works on the capital need theory and the political economy theory. Abd-Elsalam and Weetman (2003) assesses the relationship between firm size and disclosure using the capital need theory. Table I gives a summary of the different underpinning theories that has been used in the field of environmental reporting research.

<table>
<thead>
<tr>
<th>Table I Relevant Studies on Environmental Information Disclosure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>Financial-Leverage</td>
</tr>
</tbody>
</table>
From this brief discussion it is clear that an evaluation of the role of environmental agencies have been ignored. No attempt have been made in past studies to examine the relationship between environmental policy administrators or environmental agencies and environmental information disclosure nor has the institutional theory being applied as an underpinning theory for any such relationships. This work is therefore, designed not only to examine the relationship between environmental disclosure and environmental policy administrators, but to also base the study on the institutional theory. Based on these arguments the major aim of this research is to examine and assess the level of compliance with environmental information disclosure standards. Furthermore, a determination of the relationship between sustainability reporting and environmental policy administrators would be made. Thus the study attempts to verify the assertion that:

\[ H_0 \quad \text{there are no relationships between environmental policy administrators and sustainability reporting.} \]

The relevance of this work could be viewed from both theoretical and practical perspective. In the first place, consideration was given to environmental agencies and the institutional theory for environmental disclosure. The result of the study could also provide an amicable way of resolving environmental socio-economic and political problems in Nigeria by restructuring and reorganizing the major environmental agencies from thorough assessment and evaluation. Government as well as environmental policy administrators could able to review policies to suit current trend. The work could also be of enormous assistance for future development plans, scholars, researchers, environmentalists, and NGOs to name just few.

The study has been organized into 5 sections. In section one a general background of the study was given stating the research problems, questions, objectives and relevance. In the review of literature, major concepts of the study were reviewed and a model developed. The research methodology demonstrate the design of the study, in particular the variables used and their measurements. Section four is an evaluation and discussion of data results. The conclusion comes in the fifth and final chapter pointing out the major findings and implications of the study.
2.0 LITERATURE REVIEW

2.1 Introduction

Environmental financial reporting according to Firoz and Ansari (2010) is concerned with the presentation of financial and non-financial environmental information. Environmental financial statements may appear similar but may vary due to a country’s social, economic, and legal differences (Firoz & Ansari, 2010). In this section, attempts are made to review disclosure standards of this concept together with the major environmental agencies in Nigeria. In addition, the Global Reporting Initiative (GRI) standard which is one of the most acceptable standards for environmental disclosure, was also discussed together with the underpinning theory of this research.

2.2 Environmental Policy Administrators in Nigeria

2.2.1 NESREA

Formed in 2006, NESREA was established by the NESREA Act (2007) and charged with the responsibility of protecting and developing the Nigerian environment by enforcing all “environmental laws, guidelines, policies, standards and regulations” and conventions on the environment endorsed by the federal government of Nigeria (NESREA, 2015), excluding the upstream sector of the oil & gas industry. To ensure proper management of the environment through National Environmental Policy (NEP), NESREA has developed some guidelines, which includes a number of policy strategies and management approaches designed to ensure that environmental concerns are considered in economic decision-making, major development projects, and proper management of national resources. To succeed, the guideline was built on seven (7) Principles.

1. The Precautionary Principle
2. The Pollution Prevention Pays Principle
3. The Polluter Pays Principle
4. The User Pays Principle
5. The Principle of Integral Equity
6. The Principle of Intra-generational Equity
7. The Subsidiary Principle

The NEP on Environment has as its goals to secure quality environment, conserve and use environmental resources for both present and future generations, restore, maintain, & enhance the ecosystems, educate the public on the significance of the environment, resources & development and finally corporate with government agencies, countries, & international organizations to optimize the use of natural resources. These policies are geared towards examining the relationships between environmental problems and its causes, effects and solutions.

The guideline has been grouped into different sections directed towards all sectors under it and problem areas of environmental concern with the aim of achieving adequate environmental standards through the monitoring and evaluation of environmental changes (NESREA, 2015). There is also the need to enhance the publication and dissemination of current environmental information and the application of EIA (environmental impact assessment) before the implementation of any project on the environment.

2.2.2 The Nigerian Stock Exchange (NSE)

Originally known as the Lagos Stock Exchange (LSE), the NSE was founded in 1960 and started operations in 1961 with 19 Securities listed for trading (NSE, 2012). The name was changed to the Nigerian Stock Exchange in December 1977 and branches opened in major cities of the country. To prevent breaches of market rules, “deter and detect unfair
manipulations and trading practices”, regulation of the NSE was brought under the Security & Exchange Commission - SEC (NSE, 2012).

Stock exchanges are well positioned to play crucial roles in facilitating more sustainable financial markets, promoting improved corporate performance on environment, social and governance (ESG) issues, and promoting investment to help meet the expected UN sustainable development goals (SDG). The Sustainable Stock Exchange Initiative (UNSSSEI) brings together stock exchanges, policy makers and other key stakeholders to help them collaborate to this end, (SSE, 2014 Report on Progress: v).

2.2.3 Department for Petroleum Resources (DPR)

DPR seeks compliance by companies in the oil & gas industry on health, safety, and environmental laws for the industry. DPR is actually an enforceable body of applicable environmental laws and effective regulatory oversight of the oil & gas industry (Osu, 2012). DPR has been empowered by law to oversee all environmental issues in the oil & gas industry. In the area of health, safety and environment, six offshore safety centers of international standards have been put in place and the safety permit program system established (Osu, 2014).

The safety operation of companies in the industry is very difficult to monitor especially those operating offshore. Ikpe (2012) claimed that some individuals misled two indigenous companies to bury hazardous waste rather than disposing them through approved methods.

The important thing about DPR in terms of environmental disclosures is that effective monitoring and enforcement of sustainability standards and regulations in the industry could lead to more and better environmental disclosure. Improper monitoring however, may lead to less or no disclosure at all on environmental issues. Being the only body in the country responsible for this, information about its operation could only be obtained from the body. The major environmental rules and guidelines that DPR uses for the oil and gas industry is known as Environmental Guidelines and Standards for the Petroleum Industry in Nigeria (EGASPIN).

Introduced in 1991, EGASPIN is under the authority of the DPR in Nigeria (Ofuani, 2011). Operations in the Petroleum industry in Nigeria are complex. The entire operations involve processes from exploration, mining, transportation, and marketing. At each stage of production, solid, liquid, or gaseous wastes are produced and discharged. These wastes can cause pollution and as such, regulations are needed. There is hardly any law according to Ofuani (2011), which governs offshore exploration and production waste management in Nigeria. EGASPIN only contains effluent limitations, standards, and procedures for assessing and monitoring different types of wastes into the environment.

EGASPIN outlined some of the specific regulations about the petroleum industry. They include Petroleum (Drilling and Production) Regulation (1969), Mineral Oils (Safety) Regulations (1963), Petroleum Regulations (1967), Oil in Navigable Waters Decree no. 34/Regulation (1968), Oil Pipeline Ordinance Cap.145 of 1956 as amended (1965) and Petroleum Refining Regulations (1974). The growing concern for environmental damages due to oil related pollution forced the DPR to issue:

...Interior guidelines concerning the monitoring, handling, treatment and disposal of effluents, oil spills and chemicals, drilling muds and drill cuttings by leases/oil operators. Tentative allowable limits of waste discharges into fresh waters, coastal waters, and offshore areas of operations were established (EGASPIN, 1991:1).

These guidelines were aimed at environmental quality control of the petroleum industry, taking cognizance of host communities and to provide a comprehensive document on pollution in the petroleum industry. It also targeted standardization of the environmental
pollution abatement and monitoring procedures. EGASPIN (1991) is divided into 10 Parts as seen in Table 2, with each part covering specific operations.

Table II  Major Sections of EGASPIN (1991)

<table>
<thead>
<tr>
<th>PARTS</th>
<th>CONTENT</th>
<th>PAGE RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Introduction</td>
<td>1-2</td>
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<tr>
<td>II</td>
<td>Exploration and Development Operations</td>
<td>3-43</td>
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<tr>
<td>III</td>
<td>Production Operations</td>
<td>44-62</td>
</tr>
<tr>
<td>IV</td>
<td>Terminal Operations</td>
<td>61-70</td>
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<tr>
<td>V</td>
<td>Hydrocarbon Processing Operations</td>
<td>71-109</td>
</tr>
<tr>
<td>VI</td>
<td>Oil and Gas Transportation</td>
<td>110-119</td>
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<tr>
<td>VII</td>
<td>Marketing Operations</td>
<td>120-131</td>
</tr>
<tr>
<td>VIII</td>
<td>Standardization of Environmental Abatement Procedures</td>
<td>132-293</td>
</tr>
<tr>
<td>IX</td>
<td>Schedule of Implementation, Permits Enforcement Powers and Sanctions</td>
<td>294-304</td>
</tr>
<tr>
<td>X</td>
<td>Definitions and Acronyms</td>
<td>305-314</td>
</tr>
</tbody>
</table>

Source: EGASPIN 1991

2.3 Disclosure Contents of GRI (G4 2013)

The major upgrading of this version from previous versions (G1, G2, and G3) is that the standard disclosure has been classified into two major categories: General Standard Disclosures and Specific Standard Disclosures. While the latter contain the same features of G3.0 and G3.1 under “Management Approach and Performance Indicators” (fifth item), the former has seen the replacement of “Report Parameters” and “Governance, Commitment and Engagement”. In their places are inserted the following items:

- Identified material Aspects and Boundaries (G4 17-23).
- Stakeholder Engagement (G4 24-27).
- Report Profile (G4 28-33).
- Governance (G4 34-55).
- Ethics and Integrity (G4 56-58).

2.7.1.7 The Content of General Standard Disclosure of G4

Part 2 of GRI version 3.1 standard gives the standard disclosures to be made. Items to be disclosed are broadly classified into five groups. They include:

a. Strategy and Analysis
b. Organizational Profile
c. Report Parameters
d. Governance, Commitments and Engagements
e. Management Approach and Performance Indicators:
   - Economic
   - Environmental
   - Social (Labour Practices and Decent Work, Human Rights, Society and Product Responsibility)

While the first two items of disclosures contain details of cooperate vision, mission and objective; disclosures under the G4 for identified material aspects and boundaries include the following:
a. A list of all the organizations subsidiaries or sub-subsidiaries (if any).
b. The process for defining Report Content and Aspect Boundaries.
c. A list of all Material Aspects (economic, environmental, and social).
d. A statement on whether Material Aspects are within or outside the organization.
e. State the effects of restatement of information.
f. Report on significant changes in Scope and Aspect Boundaries.

Disclosures under stakeholder engagement include the following:

a. A list of Stakeholders and their basis of selection.
b. The organization’s approach to Stakeholder Engagement.
c. Key concerns raised with stakeholder and the organization’s response to them.

d. Report profile contains important information on GRI content index and method of soliciting external assurance. It discloses:

a. Date of most recent Report.
b. Reporting periods (weekly, monthly, quarterly, biannually, annually).
c. The provision of contact Point for questions on Report Contents.
d. Show the “in accordance option”, GRI Content Index, and reference to External Assurance Report.

Governance structure and composition disclosure is necessary for transparency and accountability. It contains:

a. Organizational governing structure especially on economic, environmental, and social impacts.
b. Process of delegation of authority with regards to economic, environmental, and social topics.
c. The availability of executive members on economic, environmental, and social responsibilities.
d. The process of consultation between management and stakeholders.
e. Board characters like non-executive members, independence, numbers, tenure, gender, social group’s representatives, technocrats, and stakeholder representatives.
f. Dual membership.
g. Method of Board appointments.
h. Management of conflict of interest.
i. Board’s role in setting purpose, values, and strategy.
j. Boards competency and performance evaluation.
k. Board’s role in risk management.
l. Board’s role towards sustainability reporting.
m. Remuneration and incentive policies.

Ethics and integrity must contain organization’s values, principles, standards, norms, advice on ethical and legal behaviours, and reporting unethical, unlawful, and matters of integrity.

2.4 The Institutional Theory

Institutional theory according to Bell & Lundblad (2011), addresses organizational policy changes. The theory seeks to evaluate the role of outside organizational pressure on disclosure. Organizations mostly dance to the tune of external institutional forces more so, when such forces are empowered to regulate organizational activities. In Nigeria SEC, NSE, FIRS (Federal Inland Revenue Service) and environmental agencies are all institutions that can effectively enforce external pressure on corporate bodies (Ballou, Heitger, & Landes, 2006). Such pressure may produce real change in terms of environmental reporting disclosure. NSE as a member of the UNSSEI could use this position to force all publicly listed firms in the country to comply with the UNSSEI listing guidelines. This may produce real and effective changes.
Studies have shown that constant pressure to comply with funding agencies in order to provide institutional legitimation is what makes public sector operatives like the Volta River Authority (VRA) embark on environmental reporting (Rahman, Lawrence & Roper, 2004). With the aim of exploring the importance of institutional impact on environmental disclosure Mosene, Burritt, and Sanagu (2013); writing on the Spanish wind sector came out with a result that initial pressures for environmental reporting has now been replaced by imitations by firms of each other. Using content analysis on sustainability reports of 2005-2009, they discovered that institutional pressure leads to minimal, ineffective, and unreliable environmental disclosure.

In their work on the determinants of integrated reporting Dragu and Tiron-Tudor (2013), used applied research (content analysis and data processing) to show that political, cultural and economic factors dictates the release of integrated reports in a longitudinal study of the US economy. Moreover, firms in the IT sector have been forced to financial leverage IT-based systems to help manage environmental compliance and related organizational risks (Nikolaeva, & Bicho, 2011). Competitive media pressure and visibility are important determinants of GRI adoption. Suddaby’s (2011), study was a critical view on the neo-institutionalism. He was able to put forward four problems that may hinder the achievements of the core assumptions and objectives of institutional theory. They include category, language, work, and aesthetics.

2.5 NSE and Environmental Disclosure

Studies which tries to relate the role of external organizations/institutions have come out with different results. Most of these studies have been based on the stakeholder theory (Bell & Lundblad, 2011; Ienciu, 2012; Monteiro & Aibar-Guzman, 2010). While Ienciu (2012) and Monteiro and Aibar-Guzman (2010) discovered a weak relationship, both studies applied content analysis in generating information for the study. The work of Ballou et al. (2006) however, showed no relationship whatsoever though it was linked to the institutional theory. Now that the NSE is an active monitor of environmental reporting, there is greater demand for its role as an external institution to listed firms in the NSE. Going by the belief of Monteiro and Aibar-Guzman (2010) that firms listed in the stock exchange disclose more than those not listed.

Of much significant is the relationship between policy administrators and environmental reporting. Two items were represented under this dimension. The study intends to examine the influence of NSE and DPR/NESREA on environmental reporting. The institutional theory was of greater significance in examining this relationship. As already discussed in chapter two, the institutional theory seeks to evaluate the role of outside institutional or organizational pressure on the disclosure of environmental information. Works by Bell et al. (2011) and Ienciu (2012) have been based on the stakeholder theory while Ballou et al. (2000) used the political theory to examine organizational relationship with environmental reporting.

2.6 DPR/NESREA and Environmental Disclosure

DPR and NESREA have their environmental standards and guidelines on environmental issues. These guidelines are more of regulatory than disclosure standards. Like its counterpart on the stock exchange these are some of the few researches embark upon in the area of institutional influence. In examining the relationship between tax authorities and environmental disclosure Alabede (2012) found no relationship whatsoever between the two. Ballou et al. (2006) literary review provides accountants with the most important guideline of environmental reporting (GRI). Other studies hardly gives theoretical bases of embarking on environmental reporting as it affects external influence form institutions (Alabede, 2012; Bell et al., 2011; Monteiro & Aibar-Guzman, 2012; Uwuigbe,
2012). Being the most important agencies in charge of environmental issues DPR and NESREA are expected to have significant influence on environmental disclosure.

3.0 RESEARCH METHODOLOGY

The research targeted firms operating in the Nigerian economy as its population. Given the fact that not all the firms are registered with Corporate Affairs Commission (CAC) and the NSE, the population was redefined to mean all registered firms listed in the NSE. These firms totaled 218 (NSE Factbook, 2012/2013). Furthermore, because of the emphasis on environmentally sensitive firms, the population was limited to firms whose operations have greater and potential to impact negatively on the environment. Of the 13 sectors listed in the NSE (NSE Factbook, 2012/2013), 6 are highly environmentally sensitive. Thus the agriculture, construction/real estate, healthcare, industrial goods, natural resources and oil & gas industries make up the population of this study. A total of 69 firms operates in this sector. However, the petroleum industry, which could be described as the most politically and environmentally sensitive industry has just 10 firms quoted in the NSE. For this reason 12 more firms operating in the industry in Nigeria and which, publish their annual reports in the website were added. This gives a total population of 81 firms. Collins & Schultz formulae was applied in determining the sample size of 67 firms (Enahoro, 2009). In a stratified random sampling technique, selection of the sampled firms was made pro-rata. The sources of data were from both semi-primary (environmental policy administrators) and secondary sources (GRI), covering the periods 2009 to 2014. This resulted into a total observations of 402 which, was reduced to 389 observations after screening.

Environmental policy administrators (NSE and DPR/NESREA) which, make up the independent variables, captures the role of environmental agencies in monitoring environmental issues. A structured questionnaire of between 9 and 12 items for NSE and DPR/NESREA respectively, relevant to environmental issues like environmental experts, disclosure, compliance with standards, monitoring, obstacles, sanctions, investments attracted, impact on environment, etc.; was administered. With scores ranging from 0-5, the total earned scores was expressed over the total expected scores to give the “Mean Value Index” (MVI). This index measures the rate of environmental monitoring by environmental agencies/policies administrators. The MVI is a ratio of scores obtained to expected-scores. These were conducted collectively and independently for each of the industries of the sample.

On the other hand, the GRI applied the latest version of GRI disclosure (G4) standard. Thirty-three (33) of the major disclosure items were classified into 10 groups representing firms’ environmental strategy & analysis, organizational profile, governance, economic issues, environmental issues, social issues, labour, human rights, products and ethical codes. For each of the 33 items disclosed a score of 1 mark was awarded. Non-disclosure attracts 0 score. A simple average disclosure index (SADI) was then computed by taking the ratio of total score obtained to total expected scores. This score is a representation of the environmental disclosure rate.

Data screening and cleaning shows that the data for this study is perfect with no abnormality, and validity and reliability values were all within acceptable ranges. Table III shows the result for the skewness, kurtosis, validity and reliability tests conducted on the data of the individual variables used for this research. Skewness are below 2 and kurtosis below 10, while the KMO and Alpha results were all above 60%. Data were correlated and regressed using Stata13 to determine the environmental direction, impact and relationships between environmental disclosure and environmental policy administrators monitoring role. Furthermore, descriptive statistics was applied to evaluate the rate and pattern of environmental disclosure and monitoring by environmental agencies.

**Table III Normality Test Results**
The model of the study depicting the relationship between environmental reporting and the policy administrator’s attributes of NSE and DPR/NESREA is given below.

\[
ER (Y_{it}) = a_0 + \beta_1 PA1_{it} + \beta_2 PA2_{it} + \varepsilon_{it}
\]

Where:
- \(a_0\) = a constant value
- \(\beta_n\) = coefficient of the independent variables
- \(\varepsilon_{it}\) = residual or prediction Error
- \(PA1_{it}\) = NSE policy administrators
- \(PA2_{it}\) = DPR/NESREA policy administrators

4.0 DISCUSSION OF RESULTS
4.1 Introduction

The aim of this research is to assess the level of environmental disclosure and the influence of environmental policy administrators in environmental reporting in Nigeria. In this regard the two independent variables of NSE and DPR/NESREA were regressed against environmental reporting to determine the type of relationship and influence environmental agencies have over environmental disclosure by environmentally sensitive firms listed in the NSE. The section starts with a discussion on the average performance of environmental reporting and the behavior of environmental agencies. Thereafter, the work focusses on the impact of environmental disclosure and relationship between environmental disclosure and environmental policy administrators.

4.2 Descriptive Statistics

<table>
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<td>.6545</td>
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</tbody>
</table>

The results on Table IV gives the mean, standard deviation, minimum and maximum values of the 389 observations of the study. The simple average disclosure index (SADI) which, measures the rate of environmental disclosure gives an average environmental disclosure rate of 55.06%. A critical analysis of this rate shows that it is above 50%. Environmental disclosure in Nigeria is voluntary therefore, disclosure on environmental issues is entirely the preference of firms to implement. As a developing economy, Nigeria
lacks the logistical support to embark on an effective sustainability reporting. Given this situation the disclosure rate attained by firms in this sector of the economy was therefore, very encouraging. Monitoring operations by the NSE and DPR/NESREA is about 60.93% and 49.42% respectively. For the NSE the result is far above average while the DPR/NESREA is below average. This shows that performance is more effective and efficient in the NSE than in other environmental monitoring agencies. To buttress this statement are records of the minimum disclosures. While the NSE has minimum and maximum disclosures of 58.18% and 65.45% respectively, DPR/NESREA has minimum disclosure of 38.32% and a maximum of 66.64%. Overall the record shows that environmental disclosure as it affects environmentally sensitive industries in Nigeria is encouraging.

4.3 Correlation Matrix and Regression Analysis

Table V

<table>
<thead>
<tr>
<th>Variables</th>
<th>SADI</th>
<th>NSE</th>
<th>DPR/NESREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>SADI</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSE</td>
<td>0.1511</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>SIG.</td>
<td>0.0028</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPR/NESREA</td>
<td>-0.1121</td>
<td>0.1642</td>
<td>1.0000</td>
</tr>
<tr>
<td>SIG.</td>
<td>0.0270</td>
<td>0.0012</td>
<td></td>
</tr>
</tbody>
</table>

The correlation matrix index gives a signal about the existence of relationships between sustainability reporting and environmental agencies. A close observation of the correlation index on Table V shows that a relationship exists between all the variables of the study especially between the environmental disclosure and environmental agencies. This is backed by indices of 0.1511 (SADI/NSE) and -0.1121 (SADI/DPR/NESREA). Moreover, there are no multicollinearity between the variables as none of them has an index of more than 0.9. The values are all below 0.1642 which is the highest correlation index in the observation. However, while a direct relationship exists between SADI and NSE, an inverse relationship is the result between SADI and DPR/NESREA. The implication is that higher monitoring by the NSE results in higher environmental disclosure by firms, vice-verse. On the other hand, higher monitoring by the DPR/NESREA leads to lower environmental disclosure. This is a clear indication of inefficiency in DPR and NESREA which, is very bad for environmental disclosure.

Similar results was displayed by the regression analysis in Table VI where the coefficient results showed positive relationship between environmental information disclosure and NSE, and an inverse relationship between SADI and DPR/NESREA.

Table VI

| Variables | Coef. | t    | P>|t| |
|-----------|-------|------|-----|-----|
| NSE       | 2.339624 | 3.50 | 0.001 |
| DPR/NESREA| -.4060328 | -2.82 | 0.005 |
| CONSTANT  | -.6741226 | -1.72 | 0.085 |

Both however, have a weak impact on environmental disclosure (4.21%). The p-value and t-values showed that a highly significant relationship exists between environmental information disclosure and environmental agencies on individual basis (0.001 and 0.005 respectively). Moreover, the collective relationship of the variables is highly significant at 1% level of significance.
5.0 SUMMARY AND CONCLUSIONS

5.1 Summary

Environmental problems have long-run impacts. In recent times much attention has been directed to issues of environmental matters by the international community. In developing economies, it remains to see active efforts by governments to curb environmental threats. The aim of this research is to examine the level of environmental information disclosure and its relationship with environmental agencies. After a thorough review of relevant literatures, descriptive statistics and regression analysis were applied in evaluating the rate as well as the significant of the relationship between environmental information disclosure and the NSE and DPR/NESREA which, are the major environmental supervisory bodies in the country.

5.2 Findings of the Research

Evaluation of the correlation index and regression analysis together with the descriptive statistics resulted in the following discoveries:

1. An appreciably high level of sustainability disclosure was recorded by firms in the environmentally sensitive sectors of the Nigerian economy. While some firms made no disclosure at all, other had 100% disclosure of environmental information. Average disclosure however, stood at 55.06%.

2. In terms of the impact it was reveal that while the total effect on environmental disclosure was low (4.21%), the individual impact shows a different result. For the role of NSE supervision the outcome of the study showed that for every 1 degree of change in NSE supervision environmental reporting rose by 2.34 times; while a unit rise in DPR/NESREA leads to a less than proportionate fall in environmental disclosure (0.41 times). That is, an increase in supervisory role of the NSE is effective and efficient than that of the DPR/NESREA.

3. A corollary to the above findings is that increase monitoring or supervision by the NSE leads to a more than proportionate increase in environmental disclosure. The opposite is the case for DPR/NESREA - increase monitoring encourages lower environmental information disclosure.

4. Finally and most importantly is that the relationship are highly significant at 1% level of significance. This means that the assertion of this study which states: “there are no relationship between environmental policy administrators and sustainability reporting”, should be rejected. In conclusion it means a significant relationship exists between the two albeit one is positive and the other negative. Thus there is a significant relations between environmental agencies and environmental reporting by environmentally sensitive firms in Nigeria.

5.3 Recommendations

The study recommends that the current high level of environmental disclosure be encouraged and maintained by the authorities. However, urgent action should be taken by the authorities about the negative or inefficient impact of the DPR/NESREA on environmental information disclosure. This may call for a reorganization, reconstruction and reconstitution of the agencies’ policies and management on environmental issues. Since a significant relationship exists between environmental reporting and these agencies, it should be directed towards positive results.
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Osu, P. (2011). Government steps up regulatory compliance in the oil and gas industry... And sectoral activities to gulp $20 billion annually. DPR News. A quarterly Journal of the Department of Petroleum Resources. 6(2).

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ANALYSIS OF ADVERTISING INFLUENCE ON THE SALES REVENUE OF NESTLE NIGERIA PLC

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ABSTRACT

Advertising plays is a prominent role in creating awareness for the companies and their products. Research has proven that advertising increases sales revenue of firms. Advertising provides a platform for firms to create awareness about their products or services and how consumers could make the best out of such products. This study aimed at analyzing the influence of advertising on the sales revenue of Nestle Nigeria Plc from 2000 to 2014 using secondary data collected for advertising expenditures and sales revenue of the company listed in the Nigerian Stock Exchange obtained from annual reports and accounts of the firm. The objective of the study is to determine the extent to which advertising costs influence the sales revenue of the selected company in Nigeria. Quantitative research design in form of Correlational and Ordinary Least Square regression analysis were used for the study. The hypothesis test showed that advertising expenses has no positive significant relationship with the sales revenue of the company. This study concluded that advertising is one of the most important medium of communication influencing the company’s performance in more than one ways. We therefore recommended that not only advertising should be given adequate attention while formulating strategies relating to sales revenue promotion policy. Other factors which are important to increasing sales revenue such as sales promotion, personal selling, publicity etc which are crucial should be considered.

Key words: Revenue; Promotion; Stock Exchange and Advertising

Introduction

There are so many definitions to the term advertising as there are so many scholars. According to Kotler (2000), advertising is any non-personal presentation and promotion of ideas, goods or services by an identified sponsor. Advertiser includes not only business firms but also museums, charitable organizations and government agencies that direct messages to target public. Olusegun (2006) opined that all advertisement must be honest and follow ethical standards and must not be perceived by the target consumer as lie; otherwise it can batter the image of a company and hinder it from building successful brands. Thus, for
advertising to be effective, it must have an appeal, attract attention, command interest, inspire conviction and must provoke interest (Frank, 2005). Advertising could also be defined as any paid non-personal communication about an organization, products, services or ideas by an identified sponsor (Bennet, 2006). Advertising is a cost-effective way to disseminate messages, for instance to build brand preference for a product or to educate people about government policies or to avoid hard drugs. Modern advertising is a product of the twentieth century; however, communication has been a part of the selling process ever since the exchange of goods between people started. Kazimi (2005), modern commercial advertising is the persuasive force that aims at changing customer’s behaviours. This is important because consumer wants and needs changes as their economic positions improve and as they pass through different stages.

Against this backdrop of controversy, it became very pertinent to investigate the extent to which the advertising costs of manufacturing firms in Nigeria affect their sales revenue. Consequently, one research question was designed for this study as to what extent does advertising influence the sales revenue of Nestle Nigeria plc? To answer this question, data was extracted from the annual reports and accounts of the firm for this purpose. The objective of the study is to determine the extent to which advertising influence the sales revenue of Nestle Nigeria Plc. The following hypothesis was designed for this study in null form. Ho: There is no significant relationship between advertising and sales revenue of Nestle Nigeria Plc. Advertising form independent variable while revenue constitutes dependent variable for this study. Furthermore, advertising was measured through cost of marketing and distributions variables and revenue was measured through income variable.

**Literature Review**

**Empirical Review**

Okeji (2008) evaluated effective advertising as an effective marketing tool in Nigeria: Evidence from food and beverages industry. He employed a total sample of fifty members of staff of the Nigerian Bottling Company Plc as respondents to investigate their perception regarding the effectiveness of advertising as a marketing tool in the company. The responses were analyzed using correlation and the Chi-square statistic. The study found that advertising contributes positively to sales of the Nigerian Bottling Company Plc as depicted by 100% response rate. The weakness of the study lies in its arbitrary drawing of sample size without recourse to any objective criteria. Thus it becomes very difficult and unsafe to generalize based on the findings of the study.

Abiodun (2011) examined the impact of advertising on sales volume of Starcomms Plc. The study used frequency tables, percentages and Chi-square to establish relationship between advertising and sales volume of the company. Despite the attempt made by the study to establish relationship between advertising and sales volume of the company, the study suffers from a number of weaknesses. The study failed to clearly reveal the impact of advertising on the sales volume of the firm because it utilized primary data that does not adequately capture the impact of relationships. Similarly, the sampling procedure of the study and the absence of validity and reliability test for the research instruments may have affected the data collected and by implication the findings of the study. Lastly, the number of questionnaire copies filled and returned was not adequate by any systematic standard for the test of hypothesis.

In a related study, Akanbi and Adeyeye (2011) examined the relationship between advertising and sales volume of Nigerian Bottling Company Plc between 1999 and 2009. Using the OLS regression technique and t-test on annual time series data of advert costs and sales volume as surrogates; the study found a significant relationship between advertising and sales volume of the company.
Despite the fact that the study provided a modest attempt to establish relationship between advertising and sales volume of NBC Plc, it is not completely spared of some limitations. First and foremost, the study failed to establish the stationarity of the time series data used for testing the relationship. Furthermore, given that the study aims at finding out how advert costs can improve sales, the right proxies to employ should have been advert cost and sales in their absolute values. Thus, it is highly unlikely if the results of the study were not affected by these methodological issues.

Furthermore, Akeen (2011) evaluated customer attitude towards internet advertising and online sales using MTN Nigeria as a case study. In the study, a simple random probability sampling technique, simple frequency tables and the Chi-square statistical tools were adopted for data analysis. The finding has shown that there is relationship between availability of uninterruptible power supply and effective internet advertising/online sales. A close look at the methodology of the study reveals a number of shortfalls. First and foremost, the study failed to employ the right measures of the variables to establish the relationship. Furthermore, the fact that the sampling procedure was not systematic gave rise to the arbitrary selection of sample size that is inadequate to provide a rigorous study of online sales. Finally, the study’s major recommendation has no linkage with any of its findings as the study was concerned with customer attitudes toward advertising and not the factors that affect online advertising generally.

In a nutshell, there are relatively few studies that have sought to empirically establish the connection between advertising as a cost element and the behaviour of total sales volume of Nestle Nigeria Plc. Although the work of Abiodun (2011) related to this study, it utilized primary data that did not primarily capture relationship between the variables of this study, the current study filled the gap of the above phenomenon created and improved on its scopes.

Methodology

The research design was basically quantitative using correlational and ordinary least square analysis as approach for the study. According to Mark et al (2009), correlation is referred to when a change in one variable is accompanied by a change in another variable, but it is not clear which variable caused the other to change. The choice of the design is necessitated by the fact that the study sought to establish relationship among variables. The population of this study consisted of the fifteen firms listed under the food, beverages and tobacco sector of the Nigerian Stock Exchange at 31st December 2014. This study used Nestle Nigeria Plc as case study design for the study.

Data for the study was collected purely through documentary sources by extracting the relevant data from the annual reports and accounts of the company in Nigeria from 2000 to 2014.

Model Specification

The model of the study was premised on the simple linear relationship that advertising should have some sort of effect on sales. This relationship could be modeled below:

\[ T_{S_i,t} = \alpha_0 + \beta_1 A_{C_i,t} + \epsilon_{i,t} \]

Where \( T_{S_i,t} \) is the total sales revenue for the company at time \( t \), \( \alpha_0 \) and \( \beta \) are the intercept and coefficients to be estimated, \( A_{C_i,t} \) is the advertising cost of the company at time \( t \), and \( \epsilon_{i,t} \) is the random disturbance term.

Test of Hypotheses

The test for the hypothesis for the study was summarized in tabular form and presented as shown below.
Test of Hypothesis using the Equation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-statistic</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.057E11</td>
<td>2.147</td>
<td>0.055</td>
</tr>
<tr>
<td>Advert Cost</td>
<td>0.214</td>
<td>0.290</td>
<td>0.311</td>
</tr>
<tr>
<td>R²</td>
<td></td>
<td>0.008</td>
<td></td>
</tr>
<tr>
<td>Adj. R²</td>
<td></td>
<td>-0.83</td>
<td></td>
</tr>
<tr>
<td>F-Statistic</td>
<td></td>
<td>0.084</td>
<td></td>
</tr>
<tr>
<td>F-Statistic(Prob.)</td>
<td>0.311</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson</td>
<td></td>
<td>2.141</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td></td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS Output 17.0, 2015

The table above portrayed the output of the result of Ordinary Least Square (OLS) conducted. The coefficient of the determination for the study r-squared is 0.008 i.e. 8% while its adjusted r-squared is -0.083 i.e. -83%. This implied that the level of the relationship that exist between total sales and advert costs for Nestle Nigeria Plc is accounted up to 8%. The remaining 92% is explained by other factors not explicitly captured by the model.

Null hypothesis stated that there is no significant relationship between advertising costs and the sales revenue of Nestle Nigeria Plc. Thus, the coefficient of b1 stood at 0.214 indicating a positive relationship with the sales revenue of the firm in (table 4.3) above. At 0.05% level of significance, the result showed a statistically significant relationship between advertising costs and the sales revenue of the firm in Nigeria. Since the p-value of 0.311 is less than 0.05% level of significance, we rejected the null hypothesis and concluded that there is enough evidence to suggest a significant relationship between advertising costs and the sales revenue of the firm understudy. We therefore concluded that the model is fit. We are 95% confidence that the slope for advert cost is somewhere between -2.634 and 2.140. In other words, it implied that we are 95% confidence that for every single unit increase in advert cost, the sales revenues decrease between -2.634 and 2.140 (see appendix).

Discussion of Findings

In this study, the results of the regression for the equation i.e. hypothesis test revealed that there is no significant relationship between advertising expenditure and sales revenue of the firms under study. The coefficient of determination represented by r-squared is 8% for the firms explaining that the variation in sales revenue was signified by advertising up to 8% for the firms while the remaining 92% is determined by other factors, such other than advertising such as; competitors’ price, the reputation of the company, brand name, sales promotion, product features, product quality and customers’ loyalty which were not captured by the model. The p-value of 0.311 is less than the 0.05% level of significance. Thus, the hypothesis which stated that there is no significant relationship between advertising costs and the sales revenue of Nestle Nigeria Plc is rejected. The results were not consistent with prior findings of Okeji (2008), Abiodun (2011),and Akeem (2011).

Conclusion and Recommendations

It could be concluded by stating that advertising is considered as one of the most important medium of communication influencing the company’s performance in more than one ways if properly utilized. But its influential roles could be suppressed by other factors.
which also seek equal attention at the time of framing up any sales and profitability promotion policy.

Based on the findings and the conclusion reached in this study, the following recommendations were made:

The management should emphasize on advertising as an important and strategic policy aimed at increasing sales revenues of the firms while formulating creative advertising entrepreneurial marketing strategies relating to sales revenue and profitability promotion policy. This could be achieved through the commitment of more financial resources and the enhancement of advertisement budgets from time to time in tandem with economic realities.

We recommended that there is the cogent need for the management to review their existing advertising policy on their products so that multiple approaches could be used in a cost effective manner to reach out to target consumers and by implication increase sales revenues for the firms.
REFERENCES
APPENDIX

Null Hypothesis: ADVERT has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=2)

<table>
<thead>
<tr>
<th></th>
<th>t-Statistic</th>
<th>Prob.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Augmented Dickey-Fuller test statistic</td>
<td>-4.228238</td>
<td>0.0100</td>
</tr>
<tr>
<td>Test critical values:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1% level</td>
<td>-4.200056</td>
<td></td>
</tr>
<tr>
<td>5% level</td>
<td>-3.175352</td>
<td></td>
</tr>
<tr>
<td>10% level</td>
<td>-2.728985</td>
<td></td>
</tr>
</tbody>
</table>

Warning: Probabilities and critical values calculated for 20 observations and may not be accurate for a sample size of 11

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ADVERT)
Method: Least Squares
Date: 23/02/2015 Time: 00:28
Sample (adjusted): 2000 2012
Included observations: 11 after adjustments

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADVERT(-1)</td>
<td>12.86315</td>
<td>3.042201</td>
<td>4.228238</td>
<td>0.0029</td>
</tr>
<tr>
<td>D(ADVERT(-1))</td>
<td>-34.31431</td>
<td>12.32504</td>
<td>-2.784115</td>
<td>0.0238</td>
</tr>
<tr>
<td>C</td>
<td>-2.07E+10</td>
<td>2.17E+10</td>
<td>-0.955723</td>
<td>0.3672</td>
</tr>
</tbody>
</table>

R-squared          0.690981  Mean dependent var 2.16E+10
Adjusted R-squared 0.613726  S.D. dependent var 6.60E+10
S.E. of regression 4.10E+10  Akaike info criterion 51.93943
Sum squared resid   -282.6669  Schwarz criterion 52.04795
Log likelihood     8.944167  Hannan-Quinn criter. 51.87103
F-statistic        1.961029  Durbin-Watson stat
Prob(F-statistic)  0.009119

Null Hypothesis: SALES has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=2)

<table>
<thead>
<tr>
<th></th>
<th>t-Statistic</th>
<th>Prob.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Augmented Dickey-Fuller test statistic</td>
<td>-3.462574</td>
<td>0.0297</td>
</tr>
<tr>
<td>Test critical values:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1% level</td>
<td>-4.121990</td>
<td></td>
</tr>
<tr>
<td>5% level</td>
<td>-3.144920</td>
<td></td>
</tr>
<tr>
<td>10% level</td>
<td>-2.713751</td>
<td></td>
</tr>
</tbody>
</table>

Warning: Probabilities and critical values calculated for 20 observations and may not be accurate for a sample size of 12

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(SALES)
Method: Least Squares
Date: 23/02/2015 Time: 00:29
Sample (adjusted): 2000 2012
Included observations: 12 after adjustments

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SALES(-1)</td>
<td>-1.077530</td>
<td>0.311194</td>
<td>-3.462574</td>
<td>0.0061</td>
</tr>
<tr>
<td>C</td>
<td>1.27E+11</td>
<td>5.95E+10</td>
<td>2.134420</td>
<td>0.0586</td>
</tr>
</tbody>
</table>

R-squared: 0.545236
Adjusted R-squared: 0.499759
S.D. dependent var: 1.07E+10
Akaike info criterion: 54.70900
Schwarz criterion: 54.78982
Log likelihood: -326.2540
Durbin-Watson stat: 2.036235

Regression for Advert Costs and Total Sales

Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.087a</td>
<td>.008</td>
<td>-.083</td>
<td>1.64653E11</td>
</tr>
</tbody>
</table>

Change Statistics

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.008</td>
<td>.084</td>
<td>1</td>
<td>11</td>
<td>.311</td>
<td>2.141</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), ADVERT
b. Dependent Variable: SALES
ANALYSIS OF THE IMPACT OF KWANKWASIYYA ECONOMIC EMPOWERMENT PROGRAM (KEEP) ON POVERTY REDUCTION IN KANO STATE.

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Department of Economics,
Aminu Kano College of Islamic and Legal Studies, Kano.

ABSTRACT
This study was carried out to examine the impact of Kwankwasiyya Economic Empowerment Program on poverty reduction in Kano State with a particular reference to Kwankwasiyya Youth Empowerment Scheme. The study utilizes primary data collected from administering a structural questionnaire on the beneficiaries of three sets of interventions under Kwankwasiyya Youth Empowerment Scheme such as animal traction training, livestock fattening training and bee keeping training. Sample size of the study stood at 360 beneficiaries of the aforementioned interventions. Descriptive statistics and inferential statistics were employed to achieve the objectives of the research. The results of descriptive statistic show that majority of the beneficiaries are young people and middle aged without basic education. There is a low level of financial inclusion among the beneficiaries. Land fragmentation is common among the farmers which lead to low productivity, low income and low capital accumulation among the peasant farmers. The results of t-test show a statistically significant difference between pre-intervention mean income and post intervention mean income among the respondents. The results conclude that Kwankwasiyya Economic Empowerment Program has succeeded in increasing the income and poverty reduction among the individuals in Kano State. In order make the program more effective and sustainable the study recommends the following: provision of basic infrastructure in rural area such as irrigation, roads and the like. Intensive effort should be made to provide education especially to rural farmers. Government should involve micro finance banks in the program, in which the government will provide training and loan subsidy through the micro finance banks. Socio-economic characteristics as well as interest of the beneficiaries should be considered while selecting them in particular empowerment program.

Introduction
Poverty alleviation has become the focal point of global development agenda now a days, it is the foremost developmental objective of most of the developing countries. Poverty reduction is the core development agenda of United Nations Organization; this could be a reason why it appears as the first item of the Millennium Development Goals (MDGs). Poverty alongside with climate change and international security are the key challenges of 21st Century (Mehta, 2008). It has been noted that since 1950s there has been a rising trends of poverty among developing countries, since that period a wide range of approaches were suggested to address the issue (Zakari, Shehu and Aliero, 2012). The current approach to poverty at international level is the Millennium Development Goal (MDGs) which is centered on halving poverty and extreme hunger from 2000 to 2015.

Nigeria is the most populous country in Africa with estimated population of 167 million in 2012 (CDD, 2013). The country is endowed with a wide range of natural
resources: adequate human resources, mineral resources, cultivable land among others. Despite that, the country retains the high level of poverty in the region with 69% of her population living in poverty (NBS, 2012). The country contributes about 7% of the total population of people living in an extreme poverty in the world (World Bank, 2014). As result of the high incidence of poverty in the country several poverty reduction strategies have been adopted by various government of Nigeria.

Historical evidence shows that the incidence of poverty in Nigeria has been on the increase since post-independence era. In the early 1970s the country was one of richest 50 countries in the world but it has now retrogressed to become one of the 25 poorest countries in the world (Oyemomi, 2003; Enojo and Innocent, 2014). When Nigeria gained her independence in 1960 the national poverty rate was 15% of the total population, it increased to 28.1%, 46.3%, 65.6%, 69.2% and 69.1% in 1980, 1985, 1996, 1997 and 2010 respectively (CDD 2013). The incessant increase in poverty in the country signifies that poverty reduction in the country has not been advancing despite the introduction of policies and programs of governments on poverty reduction at federal, state and local government levels. The issue of insurgency in northern part of the country and the state of infrastructure are said to be a serious challenges to poverty reduction in the country particularly in the affected areas.

At international arena various strategies and programs were adopted to alleviate poverty as a multidimensional concept. At the World Summit for Social Development in 1995 international community committed itself to come up with policies, strategies and concrete action aimed at eradication of poverty (www.un.org/rights/poverty). United Nations (UN) declared the 1997-2006 as international decade for poverty eradication. In September, 2000 189 countries signed ‘Millennium Declaration’ which give birth to Millennium Development Goals (MDGs), which is all about eradication of poverty and other source of human deprivation as well as achieving sustainable development (Qureshi, 2005). In 1999 World Bank came up with a program called Poverty Reduction Strategy Paper (PRSP). United Nations Educational Scientific and Cultural Organization (UNESCO) launched Poverty Abolition Strategy which is centered on the claim that ‘poverty is a violation of human right’ (Korbel, 2012).

Various governments of Nigeria have made several attempt to alleviate poverty in the country, in which many programs were established among which are; National Accelerated Food Production, Udoji Commission of 1970s with a primary aim of improving the standard of living, Operation Feed the Nation (OFN) of 1977, Green Revolution of 1980. IBB Regime came up with a multiple approach of poverty reduction such as Directorate of Food, Roads and Rural Infrastructure (DFFRI) in 1986, National Directorate of Employment (NDE) in 1987; Community Bank (CB) in 1988; Better Life Programme (BLP) in 1989; People’ Bank of Nigeria (PBN) in 1989. Moreover, in 1997 Vision 2010 came into being, Family Economic Advancement Programme (FEAP) was introduced in 2000, Poverty Alleviation Program in 2000, National Poverty Eradication Programme (NAPEP) in 2001; National Economic Empowerment and Development Strategy (NEEDS) was introduced in 2003, Seven-Point Agenda was also introduced in 2007; Micro Credit Fund was adopted in 2008. These programs and policies were mostly introduced with aim of ameliorating the suffering of the people in a different ways such as provision of employment opportunities, access to credit facilities, infrastructural development, agricultural transformation and the like. By so doing the people will become not only self employed by employers of labor.

Economic empowerment has been recognized as a viable instrument for eradicating poverty in Nigeria. Thus imparting general business skills into all project participants in their chosen enterprises will really enable them create and manage viable enterprises with the capacity to create jobs not only for themselves but for others and reduce poverty in society (Olayiwola, 2013). Youth in Kano State are confronted with poverty and unemployment for lack of capacity and essential skills for jobs (Sagagi, 2010) cited by Dandago and
Muhammad (2014). Lack of business skill causes unemployment which in turns causes poverty. In response to the aforementioned problem various governments of Kano State have been coming up with a series of economic empowerment programs with a primary aim of reducing poverty through job creation and entrepreneurship development. Kano State Empowerment and Development Strategy Scheme (KSEED) was one of the program introduced by Kano State Government in 2004 under the platform of NEEDS with a primary aim of ensuring sustainable development and poverty reduction within three (3) year time frame (2005 to 2007). KSEED paid emphasis on agricultural development through input procurement, skills acquisition on farming as well as farm mechanization (K-SEED, 2004). The most recent empowerment program in the State is Kwankwasiyya Economic Empowerment Program (KEEP) which was introduced by the immediate past administration of Governor Kwankwaso in 2011. Under the program about fifteen skill acquisition institutes were established in the states, about 152,444 youth (men and women) have received training and capital support in various occupations including agro-based and manufacturing activities. It is against this background that this study intends to examine the impact of Kwankwasiyya Economic Empowerment Program on poverty reduction in Kano state.

2.0 Literature Review

2.1 Concept of Poverty

Poverty is literally defined as deficiency of elements or resources that are needed or desired, or that constitutes richness. Thus inability of individual to meet his basic needs of life is synonymous with poverty. However, there is no concession among economists on what constitute poverty; it is a relative and multidimensional term. Poverty is defined by economists from different point of views. Some economist defined poverty from the monetary point of view (income), while others see it from the material ownership point of view; thirdly poverty is perceived inform of individual ability to function in the society. This view is derived from Amartya Sen capability approach; it is regarded as the recent and most comprehensive view of poverty. On the same vein UNDP defined poverty as lack of choices and opportunities in the key areas of education, health and command over resources, as well as voice related to democratic process (UNDP, 2006).

The introduction of Human Poverty Index (HPI) in 1997 has brought about a vital development in conceptualization of poverty. It enables the international communities to adopt a broader perception of poverty by including economic and social deprivation in conceptualization of poverty rather than income.

Another development in the conceptualization of poverty is participatory approach introduced by World Bank the aim of addressing local realities in international policies. In this approach poor people were involved in defining poverty, and they revealed their perception on poverty. In 1998 World Bank carried out large scale participatory study of poverty to understand local reality as defined by poor (Mowafi ) the main objective is to find out how do poor people understand and define poverty according to their own experiences? Data was collected from 47 countries around the world. They revealed their views concerning poverty for instance a poor man in Kenya was quoted in report saying “Don’t ask me what poverty is because you have met it outside my house. Look at the house and count the number of holes. Look at my utensils and the clothes that I am wearing. Look at everything and write what you see. What you see is poverty”. Another poor man from Latvia viewed poverty as “humiliation, the sense of being dependent on them, and of being forced to accept rudeness, insults, and indifference when we seek help”.

Five major findings were extracted from the report of Participatory Poverty Assessment (PPA). Poverty is a multidimensional phenomenon. Secondly, poverty is defined
as lack of what is necessary for material wellbeing such as food, housing, and land. Thirdly, poor people perceived poverty as lack of voice, power and independence, which subject them to exploitation. The situation of powerlessness, helplessness, dependency, and lack of voice are among the deprivation voiced out by the poor. Social exclusion, rudeness and inhuman treatment they often encountered by the social workers were among their deprivation. Fourthly, the poor people viewed poverty as absence of infrastructure. Finally, they also see poverty as lack of physical, human and environmental assets (Narayan, 1999).

However, Nafzifer (2006) sees poverty as a multi-dimensional phenomenon as it involves of lack of food, lack of power (dependency), lack of access to basic infrastructure (transport and clean water), lack of access to education, poor health and deficiency in income or asset. This definition is closely related to another definition proclaimed by Federal Ministry of Economic and Co-operative and Development which defines poverty as lack of food, high infant mortality rate, low life expectancy, low educational opportunities, poor water, poor health care, unfit housing and lack of active participation in the decision making process (Oyemomi, 2003). The two definitions are more or less defining poverty in term of characteristics of poverty.

2.2 Concept of Economic Empowerment

The term empowerment is defined by Organization for Economic Co-operation and Development (2009) as the process of broadening poor people’s freedom of choice and action, expanding their asset and capability as well as allowing them to participate in the institutions that affect their lives. From this definition we can point out that empowerment is a multidimensional term, it has economic, political and social aspect. Thus economic empowerment is a sub-set of empowerment.

However, the term economic empowerment is literally defined as increasing an economic strength of an entity (Wikipedia, 2015). Thus economic empowerment is a permanent solution to poverty, since a household will be economically stronger if he/she is successfully empowered. Economic empowerment has gone beyond provision of social welfare but mobilizing the self-help effort of the poor. In a society there are less privilege people, the task here is to make them economically productive. Economic empowerment is also defined as encouraging and developing the skill, for self-sufficiency, so as to eliminate the potential need for charity (Wikipedia, 2015). When household is empowered it means her income and standard of living will rise.

Kabeer, Eyben and Cornwal (2008) defined economic empowerment as “the capacity of men and women to participate in, contribute to and benefit from growth process on terms which recognize the value of their contributions, respect their dignity and make it possible for them to negotiate a fairer distribution of the growth.” Thus economic empowerment is the process of transforming the poor to become fully participant in the economic growth, which is to make them employers of labor.

The term economic empowerment is used to describe any program aimed at directly raising the income of the people. Such programs may include various interventions like agricultural intervention, microfinance, micro-insurance, support to small enterprises, social protection, asset ownership and so forth. These interventions become necessary because market forces cannot help the people living in extreme poverty.

2.2.1 Kwankwasiyya Economic Empowerment Program

Kwankwasiyya is defined as a body of ideas, beliefs and principles that describe the inspiration, vision and political ideas of Rabiu Musa Kwankwaso (Rabiu, 2014). Kwankwasiyya Economic Empowerment Program (KEEP) is an anti-poverty intervention introduced in Kano State by the administration of Governor Kwankwaso in 2011 with a primary aim of improving the income of less privileged people so as to reduce poverty in the
state. The program was named after its initiator former Kano State Governor Rabiu Kwankwaso. Under the program about fifteen skill acquisition institutes were established in the states to provide training to the people of the state in various occupations including agro-based and manufacturing activities. Under KEEP there are a wide range of interventions aimed at reducing poverty and job creation as well as entrepreneurship development. Kwankwasiyya Economic Empowerment Program is broadly divided into two schemes namely: Kwankwaso Women Empowerment Scheme and Kwankwaso Youth Empowerment Scheme.

2.3 Theoretical Literature Review

Poverty is one of the problems that economists tried to provide a theoretical solution to it. Thus poverty reduction has a strong theoretical background in economics, due to the fact that a lot of theories have been made to explain the need and ways of addressing poverty in both advanced and developing nations. Neoclassical school of economic thought believed that price is determined by forces of demand and supply. However, Marshall argued that supply was easier to vary over longer time horizons, and became a more important determinant of price in long run. Thus neoclassical theory of poverty reduction is supply side theory. It is postulated by neoclassical economist that unequal endowment of talents, skills and capital played a vital role in determining productivity of an individual and consequently generate poverty in a free market economy. Moreover, market failure such as externalities, existence of public goods, information asymmetry and the like are also considered as aggravators of poverty (Davis and Martinez, 2014). Neoclassical economist just like classical economists agreed that there are circumstances in which the government intervention is needed; this involves intervention by to government to address poverty like microcredit, economic empowerment and so forth. Although some neoclassical theories like Pareto Optimality are opposed to any intervention that involves redistribution, because it hampers efficiency. They did not see poverty reduction as overriding economic objective; they focus on efficiency rather than equality. Never the less, some neoclassical economists like Kaldor and Hick believe in redistribution via what they called compensation principle. According Kaldor-Hick criterion public policy is justified if it produces gains in excess of losses and if it is possible for winners from the policy to compensate losers. Marshall is also on the view that redistribution raises utility because there is a difference in marginal utility between income groups; this means that an additional unit of money is more valuable to a poor person than a rich person.

Therefore, this study adopts neoclassical theory of poverty reduction because it is relevant to Kwankwasiyya Economic Empowerment Program (KEEP). The program is a capacity building program; it is more or less a supply side approach to poverty reduction. KEEP tackles poverty through training and capital support to beneficiaries. That is improving their income or welfare through increasing their capacity to produce goods and services.

3.0 Methodology

This study is conducted in Kano State. The state was created in 1967, it is located in north western region of the country, it shares border with Katsina State, Jigawa State, Bauchi State and Kaduna State. Kano State has a total land area of 20,760 square kilometers with 1,754,200 agricultural hectares (K-SEEDS, 2004). Kano State is the most populous state in the country with estimated population of over 12 million (National Population Commission, 2006). Ten local government areas of Kano state will be considered in this study to represent the entire local governments of the state.
Population of this research referred to as group of people who benefited from Youth Empowerment Scheme under Kwankwasiyya Economic Empowerment Program, which involves training and financial assistance to start the business. The total number of the beneficiaries of this scheme stood at 5,224 youths during the period under review. This will be used to determine the sample size of the research.

The study utilizes two stage cluster sampling technique which consists primary unit which is random sampling of the ten (10) local government areas of the state. The state has forty four local government areas. Therefore, 10 local government areas will randomly be selected from the 44 local government areas of Kano State. However, the secondary unit of the sampling is the selection of the beneficiaries which is also a random sampling. Thirty six (36) beneficiaries will randomly be selected from each of the ten local government areas to make up the total of three hundred and sixty (360) beneficiaries of Kwankwaso Youth Empowerment Scheme. This was carried out in pro-rata basis that is 200 questionnaires was distributed to beneficiaries of animal traction training, 100 questionnaires were administered to beneficiaries livestock patterning training and 60 questionnaires to beneficiaries of honey production training. The sample size was drawn from the table of sample size developed by Krejcie and Morgan (1970).

Primary data which was sourced form administering a structured questionnaire to the beneficiaries of Youth Empowerment Scheme under Kwankwasiyya Economic Empowerment Program to capture necessary information for achieving the stated objectives of the research. However, oral interview and focus group discussion were used to supplement the questionnaire.

The data collected from the survey were coded and entered into STATA 14 for effective analysis. Descriptive statistics were used to analyse the demographic data of the respondents. Dependent t-test and chi-square test were carried out to assess the impact of Kwankwasiyya Economic Empowerment Program (KEEP).

**Hypothesis One**

\[ \text{H}_0: \mu_b - \mu_a = 0 \] Kwankwasiyya Economic Empowerment Program has not increased income of individuals in Kano State.

\[ \text{H}_1: \mu_b - \mu_a < 0 \] Kwankwasiyya Economic Empowerment Program has increased income of individuals in Kano State.

**Hypothesis Two**

\[ \text{H}_0: \text{Kwankwasiyya Economic Empowerment Program has not succeeded in reducing poverty among the beneficiaries of the program.} \]

\[ \text{H}_1: \text{Kwankwasiyya Economic Empowerment Program has succeeded in reducing poverty among the beneficiaries of the program.} \]

**4.0 Result and Discussion of Findings**

The hypotheses stated earlier in the previous are tested in this section. Hypothesis one is tested by using dependent t-test in order to ascertain the impact of the program on the income of the beneficiaries. Chi-square was also used to test the second hypothesis, in order to investigate the impact of the program on poverty reduction.

**Table 1. Mean Income of the Respondent Before and after the Training**
Table 1 shows the treatment effect on the beneficiaries of KEEP. The table reveals that the incomes of the beneficiaries have increased. In animal traction scheme for instance, the mean income before the training is 1.801105, while mean income after the training is 2.729282. In livestock training the mean income before the training is 1.240964, while the mean income after the training is 2.036145. In bee keeping training the mean income before the training are 3.578947, while the mean income after the training is 4.914894. By looking at the mean values of the income of the respondents before and after the intervention, it can be observed that the mean incomes after the intervention are greater than the mean income before the intervention in all of three programs. this implies that, the intervention program has increased income of the respondent. It should be noted that income is used a proxy of poverty in this analysis. In order to determine whether there is significant difference between the mean incomes that is income before and income after the intervention (treatment effect), dependent t-test was carried out.

The result of the t-test for animal traction training show a computed t-value of 13.0007 at 180 degrees of freedom and significance values (2-tailed p-values) of the paired t-test (Pr(T>|t|) under H_a: means(diff) !=0), which is 0.0000. as the p-value is less than 0.05 (p<.05). It can be concluded that there is a statistically significant difference between the two pair of incomes (income before and income after the intervention). This means that the null hypothesis is rejected in favour of the alternative hypothesis. Thus animal traction training intervention was effective in increasing income of individuals in Kano state.

Under Livestock Training Intervention the result of the t-test show that computed t-value is 13.0007 at 82 degrees of freedom and significance values of 0.0000. In line with the decision rule, since the significance value is lower than the level of significance (p<.05) the null hypothesis is rejected in favour of the alternative hypothesis. Hence Livestock Fattening Training Intervention was effective in increasing income of individuals in Kano State.

In Bee Keeping Training Intervention, the result of the t-test show that computed t-values14.5828 at 46 degrees of freedom and significance values of 0.0000. In line with the decision rule, since the significance value is lower than the level of significance (p<0.05) the null hypothesis is rejected in favour of the alternative hypothesis. It can be concluded that there is a statistically significant difference between the two pair of incomes (income before and income after the intervention). Hence Livestock Fattening Training Intervention was effective in increasing the income of individuals in the state.

Table 2 Observed Frequencies of Respondents Perception on Success of KEEP in Reducing Poverty

<table>
<thead>
<tr>
<th>Response</th>
<th>Animal traction training</th>
<th>Livestock Training</th>
<th>Beekeeping Training</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agreed</td>
<td>95</td>
<td>63</td>
<td>26</td>
<td>184</td>
</tr>
<tr>
<td>Agreed</td>
<td>71</td>
<td>21</td>
<td>14</td>
<td>106</td>
</tr>
</tbody>
</table>
The table 2 reveals that 184 and 106 respondents strongly agreed and agreed respectively with the assertion that ‘Kwankwasiyya Economic Empowerment Program is successful in reducing their poverty. While ten (10) and five (5) respondents neither agreed nor disagreed and strongly disagreed with the assertion. This implies that program has succeeded in reducing poverty among its beneficiaries. Although, this analysis is not enough to test the hypothesis formulated. Therefore, chi square test is carried out to enable inference on the impact of the program on poverty reduction.

### Table 3 Computed Expected Frequencies

<table>
<thead>
<tr>
<th>Response</th>
<th>Animal Traction Training</th>
<th>Livestock Training</th>
<th>Beekeeping Training</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agreed</td>
<td>104.36</td>
<td>51.27</td>
<td>28.35</td>
<td>184</td>
</tr>
<tr>
<td>Agreed</td>
<td>60.12</td>
<td>29.54</td>
<td>16.33</td>
<td>106</td>
</tr>
<tr>
<td>Neither Agreed nor Disagreed</td>
<td>5.67</td>
<td>2.78</td>
<td>1.54</td>
<td>10</td>
</tr>
<tr>
<td>Strongly Disagreed</td>
<td>2.83</td>
<td>1.39</td>
<td>0.77</td>
<td>5</td>
</tr>
<tr>
<td>Disagreed</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>173</strong></td>
<td><strong>85</strong></td>
<td><strong>47</strong></td>
<td><strong>305</strong></td>
</tr>
</tbody>
</table>

Source: Computed from table 2

### Table 4 Computation of Chi-Square

<table>
<thead>
<tr>
<th>Trainings</th>
<th>Responses</th>
<th>O</th>
<th>E</th>
<th>(O-E)²</th>
<th>(O-E)²/E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Animal Traction</strong></td>
<td>Strongly Agreed</td>
<td>95</td>
<td>104.36</td>
<td>-9.36</td>
<td>87.60</td>
</tr>
<tr>
<td></td>
<td>Agreed</td>
<td>71</td>
<td>60.12</td>
<td>10.88</td>
<td>118.37</td>
</tr>
<tr>
<td></td>
<td>Indifferent</td>
<td>2</td>
<td>5.67</td>
<td>-3.67</td>
<td>13.47</td>
</tr>
<tr>
<td></td>
<td>Strongly disagreed</td>
<td>5</td>
<td>2.83</td>
<td>2.17</td>
<td>4.71</td>
</tr>
<tr>
<td></td>
<td>Disagreed</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>173</strong></td>
<td></td>
<td><strong>85</strong></td>
<td></td>
<td><strong>47</strong></td>
</tr>
<tr>
<td><strong>Livestock</strong></td>
<td>Strongly Agreed</td>
<td>63</td>
<td>57.27</td>
<td>5.73</td>
<td>32.83</td>
</tr>
<tr>
<td></td>
<td>Agreed</td>
<td>21</td>
<td>29.54</td>
<td>-8.54</td>
<td>72.93</td>
</tr>
<tr>
<td></td>
<td>Indifferent</td>
<td>1</td>
<td>2.78</td>
<td>-1.78</td>
<td>3.17</td>
</tr>
<tr>
<td></td>
<td>Strongly disagreed</td>
<td>0</td>
<td>1.39</td>
<td>-1.39</td>
<td>1.93</td>
</tr>
<tr>
<td></td>
<td>Disagreed</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33.0752</strong></td>
<td></td>
<td><strong>33.0752</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Bee keeping</strong></td>
<td>Strongly Agreed</td>
<td>26</td>
<td>28.35</td>
<td>-2.35</td>
<td>5.52</td>
</tr>
<tr>
<td></td>
<td>Agreed</td>
<td>14</td>
<td>16.33</td>
<td>-2.33</td>
<td>5.43</td>
</tr>
<tr>
<td></td>
<td>Indifferent</td>
<td>7</td>
<td>1.54</td>
<td>-0.77</td>
<td>29.81</td>
</tr>
<tr>
<td></td>
<td>Strongly disagreed</td>
<td>0</td>
<td>0.77</td>
<td>0.77</td>
<td>0.59</td>
</tr>
<tr>
<td></td>
<td>Disagreed</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Computed from Table 2 and 3
The calculated value of $\chi^2 = 33.0752$. The degree of freedom is calculated by the formula: $(R-1) (C-1) = (3-1) (5-1)$. Therefore, $df = 8$. At 5% level of significance the critical $\chi^2 = 15.5073$ (Gujarati and Porter, 2009).

Based on decision rule, since the calculated values of chi square is greater than the value of critical chi square, the null hypothesis is rejected in favor of the alternative hypotheses. And it is therefore concluded that Kwankwasiyya Economic Empowerment program has succeeded in reducing poverty among its beneficiaries in Kano State.

**Challenges Confronting KEEP**

The findings of the study reveal that the program is confronted with some challenges. First there is a low level of education among the youth in the study area. In beekeeping training for instance, about 77.58% of the beneficiaries do not have basic education. In livestock training and animal traction training interventions about 61.11% and 62.43% of the beneficiaries respectively do not have basic education. However, basic literacy is an essential ingredient for agricultural development in modern days. Educated person is more likely to embrace modern techniques in farming business than uneducated persons. Studies conducted by Damisa et al (2011); Shehu et al (2012); Owagbemi et al (2013); Abrarulhaq (2015) confirm that there is direct relationship between education and effectiveness of poverty reduction interventions.

Procedure of selecting the beneficiaries is another challenge facing the program. Majority of the beneficiaries were opportune to enroll in the program due to their connection with politicians. The result reveals that about 66.67%, 62.92% and 24.66% of the beneficiaries of animal traction training, livestock training and beekeeping training interventions respectively were selected in the program either due to their connection with politicians or nominated by political party. It was found that a small percentage of the beneficiaries enrolled into the program through formal application without having connection with any politician. This represents 31.11%, 31.46% and 75.44% of the beneficiaries of animal traction training, livestock training and beekeeping training respectively. Thus selection of the beneficiaries is more or less a political compensation except in beekeeping training where due process prevailed in the selection of the beneficiaries.

Other challenges are poor farming infrastructure (such as irrigation, roads), shortage of plantation for beekeepers, migration of bees due to spray of insecticide. The beneficiaries of livestock training revealed that their major problem is feeding of the live stocks.

**Conclusion**

Kwankwasiyya Economic Empowerment Program has succeeded in increasing the income of individuals in Kano State, which is synonymous with reduction of income poverty. This conclusion to a large extent has validated the position that youth economic empowerments are appropriate mechanism for rising income and poverty reduction. Thus there is a strong complementarity between supply side intervention and poverty reductions, due to the fact that, significant increases in the income of beneficiaries of Kwankwasiyya Economic Empowerment Program have been realized after their participation in the program.

**4.3 Recommendations**

The following recommendations are put forward in order make anti-poverty interventions more effective in Kano State, Nigeria.

I. Education is one of the major determinants of income; it has to be given adequate attention by governments. Establishment of more schools including adult literacy centers especially in rural areas could really help farmers to harness modern farming techniques. Therefore, State and local governments should synergize in this context.
II. It is pertinent for the government to work toward eliminating corruption and nepotism inherent in the implementation of anti-poverty interventions. Selection of the beneficiaries should be based on merit rather than political compensation. Civil societies and trade unions can be involved in the process of selecting beneficiaries, so that the right persons will be enrolled in the program.

III. State and local governments should synergize to provide adequate Infrastructures especially in rural areas, since they are positively related to income and productivity. Provision of roads in rural areas will help farmers in transporting their products to where they are demanded. By so doing farmers will have better access to market for any increase of their production and reduce post-harvest lost.
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This Day newspaper, 14 June, 2014

THE IMPLICATION OF POPULATION POLICY FOR SUSTAINABLE DEVELOPMENT IN NIGERIA

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Abstract

Among the major problems that have remained a concern to scholars, individuals and the government in Nigeria is the problem of population growth and development. This paper attempts to examine the implication of population policy for sustainable development in Nigeria which begins with an introduction on the nature of Nigerian population, theoretical postulation by various scholars on population and development, the Nigeria’s population policy of 1988 and its subsequent review that gave way to the national policy on population for sustainable development of January, 2004, reasons for the failure of the policy and the challenges of these population policies on the well being and quality of life of all Nigerians. Recommendations on the way forward and conclusion were offered.

Key Word: Implication, Population Policy, Sustainable Development

Introduction

Nigeria is the tenth most populous country in the world and the largest in sub-Saharan Africa. The Nigerian population has more than doubled since she attained nationhood in 1960. With the data obtained from the past censuses, the Nigerian population increased sharply from 30.4 million in 1953, 55.7 million in 1963, to 89 million in 1991 (NPP, 2004). The last population census and housing survey shows that Nigeria has a population of about 140 million people (census, 2006). With the annual growth rate of 3.02 percent which is nearly the same as the annual GDP growth rate of 2.02 in 1999, 2.8 in 2000, 3.8 in 2001 and 6.0 percent in 2006 (NPC, 2008) and Per Capita Income falling significantly to about 300 dollar. Approximately, 58% of Nigerian are living below the poverty line in 1985, and between 1996–1999 has dropped to 48.5%. Presently, over 70% of Nigerians people are living in absolute poverty i.e in less than US 2 dollar per day (Population Reference Bureau, 2005). It is however obvious that Nigeria’s population growth rate is clearing unsustainable and has a direct bearing on the nation’s socio-economic development.

Nigeria has a young population compared to more advanced countries. More than two in five Nigerians are below 15 years old and will enter child bearing ages (Ibid). By 2015, the number of women in the reproductive age group will be about 45 million. The implication of this high young population bracket is that, Nigeria’s dependency ratio is much higher and of course, high dependency ratio’s affect family and society in several ways including incidence of more children per adult to provide with food, clothing, education, housing etc.

The government at all levels, is equally faced with the challenges of providing essential services to this overwhelming, growing population as the incidence of high fertility naturally leads to increased demands on the economy and social services. More than 6.9 million Nigerian children of primary school age not in school. An uneducated mind may likely be a potential danger to the society.

The term population is defined as the total number of people or individuals living in particular geographical area over a given period of time. Sustainable Development on the
other hand refers to the ability of the nations or state to meets the needs of the present without compromising the ability of future generations to meet their own needs politically, socially and economically.

Theories on Population and Development

Population and development are two inseparable terms in the dictionary of human society. The linkage between them, however, remains a matter of controversy among scholars as most of the concepts and theories postulated to offer convincing explanation are either weak or grossly inadequate to tally with the contemporary changes and trends in human society (Maigari, 2002).

However, in viewing population various scholars have contributed for example, Malthus views is a turning point in the history of population study. It has been generally acknowledged that the year of the publication of his book was reckoned as a base year of population doctrines. It is on this note that all views on population were classified as “pre-Malthusian”, “Malthusian”, “Anti-Malthusian” and “Neo-Malthusian” (Weeks, 2005). In pre-modern times scholars presumed that human population should have the ability to reproduce itself. In other words, if societies are able to produce children that society will extend. The emphasis on ancient Greek scholars rest on the increase in population, which largely are associated with the high number of mortality due to war, famine and infectious diseases therefore, in order to cope with that, a society should have the ability to reproduced.

Plato, writing in The Laws in 360 B.C. emphasized that for any society to attain human perfection, such a society must have stability rather than growth in its human population. Specifically Plato proposed keeping the ideal community of free citizens at a constant 5,040, which is handy because it can be divided by different number. Plato felt that too many people lead to anonymity, which would undermine democracy, whereas too few people would prevent an adequate division of labor. He therefore, emphasized the quality of humans rather than the quantity.

Aristotle, a student of Plato, was concerned that the population of the city-state should not grow beyond the means of the families to support themselves. In The Politics written in 340 B.C, he advocated that the number of children should be limited by law, and that if a woman become pregnant after already having the required number of children allowed by law, an abortion would be appropriate. This idea is presently practiced in China’s one child policy (Ibid).

In the Roman Empire, the reigns of Julius Caesar and Augustus Caesar, which were characterized by constant warfare, the guiding principles of such period or society was the encouragement of reproduction (Pronatalist doctrine). In appropriately 100 B.C. Cicero noted that population growth was seen as a necessary means of replacing war casualties and of ensuring enough people to colonized the empire (Ibid).

Ibn Khaldun (1380 A.D.), one of the great Arab historians and philosophers from the middle east and north Africa writes in the 14th century, that population growth creates a need for specialization of occupation, which in turn leads to higher income. Thus, the inhabitants of a more populous city are more prosperous than their counter parts in a less populous one. To him therefore, procreation is stimulated by high hopes and resulting to heightening of animal energies (Ibid).

Adam Smith in the 18th century argues that population growth is good but if is rapid is a problem, because it is associated with poverty. To him, there is supposed to be harmony between population growth and the economy to avoid poverty and other peculiar problems. He argued that population growth is supposed to be dependent on economic growth and if the reverse is the case, there is what they termed in economics “the law of diminishing returns”. This marks the beginning of Malthusian theory in the 18th century (Ibid).
Thomas Robert Malthus (1766-1834), was an ‘English Clergyman, College Professor and an advocate of social philosophy’ who thought that a rational man could rapidly perfect his existence through social reform. This was reflected in his publication: *The Principle of Population (1798).* He stressed that “the power of population is definitely greater than the power in the earth to produce subsistence (food) for man. Population, when unchecked, increases in a geometrical proportion (1,4,8,16,32), while subsistence increases only in an arithmetic proportion (1,2,3,4,5,6). Thus, a slight acquaintance with numbers will show the immensity of the first power in comparison with the second”. These views were supported by two major postulations that: “food is necessary for the existence of man and the passion between sexes is necessary and will remain nearly within its present state” (Maigari, 2002 ch. 7, p. 60)

On this note, Malthus argued that the tendency of the population to grow faster in relation to its means of subsistence had led to human misery and placed several obstacles in the path of human progress. Thus, in his own views, economic growth and development cannot be achieved with unchecked increasing population growth, which goes along with high rate of unemployment, inequitable distribution of resources, poverty and pressure on resources and its subsequent degradation.

Neo-Malthusian further advanced this assertion that there have been instances where growing population has starved because of their inadequacy to increased food supply. For example, the claim on population growth and food production that since around 1984 the world’s population has been growing faster than the corresponding increase in cereal production and that consequently per capital cereal output has decline. Based on this claim, Brown (1994) as cited in (Maigari, 2002) suggests that 1984 may come to be regarded as a “watershed year” making the abrupt reversal of food output per person. In line with this also, Ehrlich (1993) predicts that these adverse agricultural trends will probably deepen in the 1990s and may lead to massive famines.

As development entails improvement of material condition of the populace, equitable distribution of resources, elimination of poverty and unemployment, and provision of infrastructural facilities among others. Therefore, according to Neo Malthusians, rapid population growth is incompatible with sustainable development and environmental resources management as such, it negates development.

Karl Marx (1818 - 1883), one of the radical scholars and his friend, Friedrich Engels wrote on the relationship between population growth and poverty. Marx stressed that laboring masses are the foundation of the society and the ultimate source of wealth. Therefore, society can benefit by its increasing number (population growth). More people according to Engels mean more wealth for capitalist rather than for the workers because the capitalist were skimming off some of the worker wages as profit for themselves.

Engels further, argued in 1865 that whatever population pressure existed in society was really pressure against the means of employment rather than against the means of subsistence. Thus, they flatly rejected the notion that poverty can be blamed on the poor. Instead, they said, poverty is the result of a poorly organized society and the imperfection of the capitalists in a capitalist society.

The basic Marxian perspective is that each society at each point in history has its own law of population that determines the consequences of population growth. For capitalism, the consequences are overpopulation and poverty whereas for socialism, population growth is rapidly absorbed by the economy with no side effects. Implicit in the writings of Marx and Engel is the idea that the normal consequence of population growth should be a significant increase in production. After all, each worker obviously was producing more than he or she requires, in a well organized society, if there were more people there ought to be more wealth, not more poverty. Therefore, to Marx and Engels, inequality is the major cause of the poverty and other social vices not rapid population growth.
Demographic Transition Theory

This theory was based on the demographic experience of Western countries, which have moved from a condition of high mortality with consequent population growth to condition of low mortality and low fertility leading to a slow growth of population. These two stages are referred to as old balance and the new balance. The theory postulated that population growth is self-corrective given the means to increase agricultural and industrial production. Thus, it was argued that a transition occurs over a period of years during which a condition of high death and birth rate changes to one of low death and birth rate. The period of transition has been broken down in stages.

**Stages 1:** Pre-industrial stage, was characterized by high birth rates and high but fluctuating death rate, population growth was therefore very slow.

**Stage 2:** Early transition stage, death rate began to drop but birth remain high or may even increase as a result of increase of women of child-bearing age. This is characterized by rapid population growth as in some developing countries such as Nigeria.

**Stage 3:** Late Transition stage, low death rate and steadily declining birth rates with a resulting decrease in population growth.

**Stage 4:** Post-Transition stage, birth and death rates are low and fairly steady as in countries of Western Europe, USA and USSR.

To sum up, conservationists, raise an alarm which is gloomier than that of Malthus. They stressed that modern man destroys his habitat and the future generations would be caught in the rise of growing number and diminishing resources. Thus, according to conservationists, the only success to this endeavour is in terms of population control, wise management of resources, restriction of environmental pollution, and new international structures.

Nigeria Population Policy

The National policy on population was first introduced and written in February 4th, 1988, during Babangida’s regime to reduce population growth as a collaboration between the Federal Ministry of Health and the World Bank (NPP, 2004).

Over the years emerging issues such as the HIV/AIDS, poverty, gender inequality among others, necessitates a review of the 1988 National population policy, giving way to the National policy on population for sustainable development signed by the then President and Commander in Chief of the Armed Forces, Federal Republic of Nigeria, Chief Olusegun Obasanjo on January 28, 2004. The policy outlines a multi-sectoral strategy for the challenges posed by rapid population growth. The policy strives to inform all stakeholders about the linkage between population and developmental issues like housing, health, education, agriculture, food, economy, energy, environment, transportation, security, employment, urbanization and so forth. This in effect means the effect of population on the well-being and quality of life of all Nigerians (Ibid).

In the policy, it is stated that: “To achieve sustainable development and a higher quality of life for all people, Nigeria shall promote appropriate policies including population related policies, to meet the needs of current generations, without compromising the ability of future generation to meet their own needs” (NPP, 2004).

The goals of these policy states that:

- To achieve sustained economic growth, poverty eradication, protection of the environment and provision of quality social services
- To achieve a balance between population growth rate and available resources
- To improve the productive health of all Nigerians at every stage of the life cycle
To accelerate the response to HIV/AIDS epidemics and other related health issues

To achieve a balance and integrated urban and rural development

To achieve progress towards a complete demographic transition to a reasonable growth in birth rates and low death rates (NPP, 2004).

Furthermore, the overall goal of the National policy on population for sustainable development is improvement of the quality of life and the standards of living of the people of Nigeria (NPP, 2004).

The set up target for the national policy on population for sustainable development are:

- Achieve a reduction of the national population growth rate to 2 percent or lower by 2015.
- Achieve a reduction in the total fertility rate of at least 0.6 children every 5 years.
- Increase the modern contraceptive prevalence rate by at least 2 percentage point per year
- Reduce the infant mortality rate to 35 per 1,000 live births by 2015.
- Reduced child mortality rate to 45 per 1,000 live births by 2015.
- Reduce maternal mortality ratio to 125 per 100,000 live births by 2010 and to 75 by 2015.
- Achieve sustainable universal basic education as soon as possible prior to the year 2015.
- Eliminate the gab between men and women in enrolment in secondary, tertiary, vocational and technical education and training by 2015.
- Achieve a 25 percent reduction in HIV/AIDS adult prevalence every five years.

Reasons for the Failure of Nigerian Population Policy

However, achievement of these policy goals and target was limited due to flaws in the implementation strategy adopted for the national population program such as:

- Cultural and religious aversion to family planning in Africa and in particular Nigeria due to the high cultural/religious demand for children. Children in Africa are generally considered to be source of wealth and prestige therefore, all effort are made to have higher number of children in order to be accorded with such respect and in some cases issues of sex preference may come in, people were therefore, encourage to be polygynous.

- The policy suffers poor planning from the leaders. This is because policy relating to family in Nigeria needs the support, cooperation and coordination of traditional/religious rulers of which the policy neglected, therefore, it fails woefully.

- Lack of commitment towards implementation of this policy goals and target. Government at the state and local level were not committed towards implementation of population policy because they are together with the people at the grassroot and can easily influence them to accept the policy

- Poor coordination from top to the bottom makes the policy unsuccessful, because NPCs offices were not existing in some local government areas even if they exist they are not fully functional, some of the offices were dilapidated.

- Inconsistency and corruption from the officials whereby facilities and equipment mean to be distributed freely for population control were either stolen or diverted and sale to privately owned clinics

- Illiteracy on the part of the public because population control were look down upon as a sinful act mean to violate God natural laws of procreation as such it is rejected in totality
The Challenges the Nigeria’s Population Policy

Nigeria is a developing country that is experiencing rapid population growth due to high fertility rate. Estimates of total fertility rate for the years of 1965 was 6.6, 1970 (6.5), 1971 (7.3) and 1975 is 7.0 respectively implying an increase between 1965-1975 (NRDS, FOS, Lagos 1968). The Nigerian Demographic and Health survey (1983 - 1986) put the total fertility rate of Nigeria at 6.43, 7.40 in 1986, 5.60 in 1995 – 1999 (NPC, 2000), 5.7 in 2003 and 2008 respectively (NPC, 2003, 2008), 5.5 in 2013 DHS. These resulted in a population with a large proportion of young persons who are potential parents in the future. Thus, an “irresistible momentum” for growth has already built.

The implication is that, even if the prevailing high level of fertility should decline in the immediate future to the point that each couple has only two children to replace themselves, the population of the country will still continue to grow for the next 40-50 years (NPP, 2004) until the disproportionately large number of young people moves beyond the reproductive span. This trend suggests that Nigeria would have to double its entire infrastructure for food production, health services, education, water supply, housing and energy services to maintain today’s low standard of living. And for living standards to rise, the rate of growth of the economy and the provision of social services would have to be much higher than the rate of population growth.

The other serious challenge of Nigerian population is the high dependency ratio. For example, in 1981, while the total population of people between the ages of 15-44 years were about 42 million, the total population of people between the ages of 0 – 14 years and 45 years and above were about 45 million (PAN, 1991). With this continued rise of the population, both the number of school-age children in the population and school enrolment will increase. Expanding enrolments will likely result in a worsening pupil/teachers ratio of 200 students to 10 teachers, overcrowded classrooms, shortage of educational materials and a need for greater funding of education. What is happening is that the nation has to muster its limited resources to provide educational services demand by exploding population at the expense of other essential services.

Another serious challenges is, as the population expands is on health and nutrition. As the number of children under five years of age and women in their childbearing years increases, the group with the greatest health care needs will result in increased pressure on health system.

The Nigerian Demographic and Health survey (2013) indicated that 37% of children under five years of age were stunted or too short for their age, which indicate chronic malnutrition; 18% were wasted or too thin for height, which is a sign of acute malnutrition; and 29% were underweight or too thin for their age (NPC,2013). Despite this, UNICEF as cited in Zango (2002, ch. 1, p. 4) classifies Nigeria as a country with severe child malnutrition. The implication of this is high mortality rate, which account for the under five mortality of 128 per 1,000 live births, infant mortality of 69 per 1,000 live births and neonatal mortality of 37 deaths per 1,000 live births in Nigeria.

Agriculture and food security is another major challenge of Nigeria’s population growth. Agriculture being the major sector of Nigeria economy employed about 70% of active labor force, but contributing 38% (NPP, 2004) of the GDP and providing means of subsistence for the large and growing population without food security. Population pressure is attributed as one of the factors responsible for the tremendous rise in the nation food importation. The nations food importation which was very marginal between 1960s and up to the middle of 1970s, sky-rocketed from the late 1970s up to today (PAN, 1991).

According to the Federal Ministry of Agriculture, the nation’s 3% annual population growth, is growing faster than the all-agricultural commodities in grain (PAN, 1991). This is indeed very serious. A nation that cannot feed itself is in trouble. The implication is that, food
Importation diverts the urgently needed foreign exchange. This is what currently informed the Central Bank of Nigeria to attempt to ban the importation of rice into the country.

Housing is also one of the basic necessities of life. In the urban centre the major problems of housing are severe shortages of houses, overcrowding and the spread of slums and shanty towns. In the rural areas, most of the houses are poorly constructed, with thatch roofing, unsafe and lack basic amenities such as portable water and electricity. The rapid rate of growth of both the urban and rural population makes comfortable housing difficult. The implications are, due to this congestion, the spread of communicable diseases which invariably shorten our life expectancy to 44 years compared to Europe 73 years, USA 76 years and Asia 65 years.

The implication of this policy therefore, Nigeria need to double it entire infrastructural facilities in building more schools, employ more teachers, increase education instructional facilities. Presently, Nigeria need 25 million personal computers to achieve MDGs 2015 target of eradicating illiteracy in the next 3 years. It is a well known fact that the ability to read and write is an important personal assets which increase an individual oppurtunity in life. The NDHS shows the literacy level of Nigerian men and women, the result shows that 75% of men are literate against 53% of women age 15-49 with variation across age and residence. The result further shows that 45% of women and 62% of men have a secondary or higher level of education also with variation across zones, states, wealth quintile and residence (NPC,2013).

On the health sector, the governments need to build more hospitals, train and employ more medical personnel, nurses, increases the production of more vaccines and drugs so as to have access to primary, secondary and tertiary health care system so as to be able to provide an effective, efficient, quality, accessible and affordable health services that will improve the health status of Nigerians.

Sustainable development can only be achieved if government is serious about restoring infrastructures. A nation of over 140 million people with the erratic power generation of less than 3,500 megawatt is only joking when it talks of sustainable development. The nation must equally create investment friendly climate through a combination of legal, tax and other measures that will encourage genuine investors especially indigenous ones for the country to attain sustainable development.

These rapid population growth of Nigeria has summarily lead to high rate of poverty, unemployment, and underemployment which invariably lead to crime, increasing number of school age, high dependency ratio, population pressure on health services, social services, pressure on housing, agricultural system, decrease in the standard of living and environment etc. Owing to the above therefore, Zango (2002) said, the issue of development in Nigeria today has rather become a “Nightmare”. While, Umar said development has been “arrested”.

**Recommendations on the way forward**

1. There is no gainsaying that the level of a country development is measured by her socioeconomic standard including quality and accessible health care services, workforce, affordable social services, portable drinking water, twenty four hours power supply etc, therefore, government needs to build more hospitals, train and employ more medical staffs in order to meet up with the goals and target of a Nigeria’s population policy

2. Housing loan scheme need to be encourage and supported with easy access to Nigerian in order to provide housing for all as housing is one of the basic necessities of life. In addition to this, agency that are responsible for regulating its construction in terms of quality and standard should be strengthen to avoid construction of dilapidated houses and shanty towns.
3. Population and family life education shall be strengthened, expanded, improved and implemented as contained in the National policy because it is a well known fact that an educated society is known to harbor low level of population. Furthermore, adult education on family planning shall be conducted to articulate the problem of rapid population growth. This should be done through group discussions in the villages, factories and religious gatherings etc highlighting the seriousness of Nigeria’s population growth rate.

4. More schools should be established and strengthen both private and public so as to increase the enrolment rate in order to meet up with the challenges of children not going to school and to capture out of school age children to meet up with the goals and target of eliminating illiteracy by the year 2020.

5. Women should be allow and empower to participate actively in all aspect of development and effectively addresses gender issues, violence and all forms of harmful practices. Through this process population growth would be reduce and women socioeconomic situation will be enhanced.

**Conclusion**

In Nigeria, the task of increasing the tempo of sustainable development is not easy, therefore effective management of the national population programme is a national priority which demands the commitment, co-operation, collaboration and support of all stakeholders, including the political and opinion leaders, policy makers in government and private sectors, non-governmental and civil society groups, donors/development partners, community leaders and community based organizations, traditional and religious leaders, mass media and the general public. However, despite this tremendous challenges the policy was able to achieved a reduction in total fertility rate from 7.40 in 1986 to 5.5 children in 2013, reduce infant mortality from 100% in 1999 to 69 deaths per 1,000 live births in 2013, child mortality from 112 to 64 and under five mortality rate of 201 to 128 deaths per 1,000 live births while maternal mortality has also reduce from 800 deaths per 100,000 live births in 2003 to 545 in 2008 and subsequently increase to 576 per 100,000 live births in 2013.

The policy further aims to reduce the gab in enrolment between men and women in secondary, tertiary and vocational or technical education and training by 2015, and also to eliminate illiteracy by 2020. Again the NDHS 2013, shows 62% of men and 45% of women have a secondary or higher education in Nigeria. This clearly shows that wider gab still exist between men and women in terms of education, while on the literacy level 75% of men and 53% of women are literate. Based on this therefore, illiteracy is yet to be eliminated with over 47% of women and 25% of men are still illiterate.

Lastly, the policy target to achieve a 25% reduction in HIV/AIDS adult prevalence every five years, The NDHS 2013, surveillance result indicate a reduction on HIV/AIDS prevalence over the years from 5.8% in 2001 to 4.6% in 2008 and 4.1% in 2010. This evidently shows that despite the fact that the policy did not achieve a 100% success in the implementation but help to reduce the menace of the problems.
References


THE RELATIONSHIP BETWEEN CAPITAL STRUCTURE AND VALUE OF THE NIGERIAN LISTED DEPOSIT MONEY BANKS

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Abstract

The objective of this study is to determine the relationship between capital structure and value of Nigerian Deposit Money Banks (DMBs) between 2006 and 2014. Eleven (11) listed DMBs drawn from a population of fifteen banks were studied. The data was collected from Annual Reports and Accounts of the sampled banks and Nigerian Stock Exchange Daily Official Listing for the period of the study. The analysis of data was made using descriptive statistics, correlation and regression techniques. The result shows that Total Debts to Total Equity has a significant negative relationship with the DMBs’ value while a significant positive relationship has been established between the Total Debts to Equity Squared and the DMBs’ value. Then, the cut-off is estimated to be 25 times. This signifies that Total Debts to Total Equity is negatively related to the value of the DMBs up to 25% after which the value starts to increase as the Total Debts to Total Equity is increased. This shows the importance of debts, more especially long term deposits in creating value to the DMBs. Thus, this study recommends that the DMBs should solicit for more deposits and other related long term debts, which should be at least 25 times of their equity. The debts should be given to both new and existing customers as loans and advances after due consideration of the determinants of customers’ credit worthiness with the view to the maximising DMBs’ value as well as reduce the incidence of non-performing loans facilities.

Key words: Capital Structure, Deposit Money Banks, Nigeria, Optimal Level, Value

1.0 Introduction

The capital structure decisions and financial supply by managers are considered among the most important aspects of firms. These decisions are made in such a way as to ensure the maximisation of profit, value and overall welfare of the firms (Barine 2012). Capital from the accountants’ point of view is seen as the amount of money or wealth capable of being employed in the production of more wealth (Wikipedia 2014). Although it can be obtained from various sources, capital for a firm can be basically gained from debt, equity or a combination of both. This combination or components that make up a particular capital of a firm is referred to as capital structure.

Based on the fact that the return accruing to debt holders is lower than that required by equity holders, traditionalists like Solomon (1963) argued that capital structure is
presupposed to have a positive effect on a firm’s market value. Thus, as more of cheaper or less risky debts are issued, weighted average cost of capital (WACC) of the firm falls before a firm attains its optimal debt level. According to them, a given financing mix minimizes WACC. As a result, the value of firm is maximized for a particular financing mix which in turn minimizes WACC (Ward 1999) as cited in Muhammad (2010). The traditionalists based their argument on the cost of the sources of financing the capital, and suggest that the value of the firm increases or the cost of capital decreases initially within a reasonable limit of debt, after which further increases in leverage reduces the value of the firm or increases the cost of capital. Here the optimal capital structure exists when the cost of capital is at minimum and the market value is at maximum.

Raj and Ajit (1996) posit that the value of a firm is affected by many factors. Factors such as the reputation of promoters, management of the firm, economic and political conditions, role of bulls and bears and government policies are qualitative in nature. Corporate capital structure may further be affected by other factors which are quantitatively measurable. Among the factors as evident in the works of Modigliani and Miller (1958) is profitability.

Despite the effect of other factors, the value of a firm is also affected by capital structure. This is evident in the empirical studies of Modigliani and Miller (1963), Miller (1977), Jiraporn and Liu (2008) and Chowdhury and Chowdhury (2010). Modigliani and Miller (1958) proposed that the irrelevancy of capital structure should be included in determining the firm value under perfect capital market conditions. Their argument is that firm value depends on its operating profitability rather than its capital structure in the absence of corporate tax and bankruptcy cost. However, in their study later, Modigliani and Miller (1963) modified their conclusion and considered the effect of taxation and bankruptcy costs in studying the capital structure and firm value. They now support the relevancy of capital structure in determining firm value.

The banking industry in Nigeria, particularly listed Deposit Money Banks play an important role in facilitating and stimulating economic development. This made the Central Bank of Nigeria (CBN) to take steps in revitalising the banking sector by stipulating N25 billion as the minimum capital base for all banks in the country (Agundu, 2014). This decision which led to the emergence of 25 commercial banks as at 31st December 2005 CBN out of which fifteen (15) are DMBs as at 2014 (Nigerian Stock Exchange, 2013/2014). In order to be able to meet up the minimum requirement, some banks merged with others (for example, United Bank for Africa and Standard Trust Bank). Others were acquired by the stronger ones. For example, Broad Bank of Nigeria PLC was acquired by Union Bank of Nigeria PLC and Stanbic IBTC emerged from the unification of Stanbic Bank and IBTC Bank (Akpansung & Gidigbi, 2014). In order to adequately meet the minimum requirements the banks embarked on issuing debt securities and borrowings in addition to equity, as means of financing their operations. This is evident from the banks’ annual reports and accounts produced after introduction of the policy. The reports show that virtually all most of them engaged in issuing debt securities progressively.

Even though, a number of studies such as that of Ogbulu, and Emeni (2012), Collins, Filibus, and Clement (2012) and Lawal (2014) among others have been conducted on capital structure in Nigeria, the studies attempted just to establish a linear relationship between capital structure and firm value. Thus, considering the fact that DMBs serve as the engine hub of any economy, the objective of this study is to find a non-linear relationship between capital structure and firm value of the Nigerian DMBs with the view to establishing the optimal capital structure of the DMBs in Nigeria.
2.0 Literature Review

In their pioneering work on the cost of capital, corporation finance, and the theory of investment, Modigliani and Miller (1958) argue that under the assumptions of perfect capital market considering given the fact that no bankrupt cost, without taxes and capital markets are frictionless, financial leverage is unrelated to firm value. Recognizing the impact of tax shield, a modification to this conclusion was propounded by M-M in 1963 on the ground that debt can reduce tax to be paid. They, now argue that capital structure is related to firm value. Thus, the study noted that the best capital structure of a firm should be one hundred percent (100%) of debt instruments. The core of M-M (1958, 1963) hypothesis centre on two propositions; firstly under a perfect capital conditions the value of a firm is independent of its capital structure and in the presence of tax and bankruptcy costs capital structure is relevant to the determination of firm value. Secondly, there is positive relationship between capital structure and firm value. Most of the empirical literature on capital structure and firm value emanates from the irrelevancy theories of capital structure of Miller and Modigliani (1958) and (1963) respectively. This happened as a result of their ability to relax the stringent assumptions of perfect capital market, absence of bankruptcy cost and taxes in addition to frictionless markets.

Many empirical studies on capital structure were conducted in both developed and developing countries. One of the earlier studies was carried out by Raj and Ajit (1996) for the purpose of finding an optimal capital structure in Indian companies, both at the micro and macro levels, and whether financing decisions affect the value of a firm. In conducting their study, a sample of 26 widely held Indian private sector companies from top 300 large scale companies was taken for a multi-period covering from 1981-82 to 1990-91. The study used both primary and secondary data obtained from Bombay Stock Exchange Directory and a mailed questionnaire respectively. The finding of the study shows no definite relationship between change in the capital structure and the value of a firm and none of the sampled companies was found to be highly geared. Moreover, no significant relationship was found between change in capital structure and the value of a firm, at the micro level. It can be deduced from this study that this happened because the value of a firm is affected by a multiplicity of factors, capital structure being just one of them. And, not all of these factors are measurable. For instance, due to the qualitative nature, factors like government policies, economic and political conditions, role of bulls and bears, are not measurable due to their qualitative nature.

Chen (2002) conducted a study in order to test the influence of the debt structure on the value of firms that are not operating in the financial industry in Netherlands. A sample of 176 firms was utilised for the year 2001. Although it is well accepted that the market value of any firm is independent of its capital structure following the assumption that capital markets are “perfect” (MM 1958), it is observed in this study that the optimal capital structures are closely related to the growth potential of the firms and such other variables, such as the size and the industry’s characteristics. Building on the argument McConnell and Servas (1995) contend that for high-growth the corporate value of a firm is negatively correlated with leverage, whereas for ‘low–growth’ the corporate value of a firm is positively correlated with leverage. On the other hand, Chen (2002) disputes that the growth opportunities may also influence the optimal capital structure, which in turn influences firm value. Despite the small number of that observation which makes it difficult to generalise the conclusion, the study by Chen (2002) reveals the evidence that the firm value will be increased if the firm chooses not subscribe to debt capital structure. This is contrary to the findings of Miller and Modigliani (1963) which show that in the presence of corporate tax and bankruptcy cost capital structure has impact on firm value.

In order to find the relationship between financial leverage and firm’s value Rayan (2008) carried out a study in South Africa. The research was conducted using secondary data
sourced from the McGregor BFA database for the period 1998-2007. The data was analysed using regression analysis technique. The sample of his study included 113 Johannesburg Stock Exchange (JSE) listed firms, excluding the banking and mining industries. It was found that financial leverage has a negative and significant effect on firm value. Another study to investigate whether there is an optimal leverage at which point firm is able to maximize its value was carried out by Cheng et al. (2010) using an advanced panel threshold regression model. The model was applied to test the panel threshold effect of debt ratio on firm’s value among 650 A-shares of Chinese listed firms from 2001 to 2006. The results of their study confirm that a triple-threshold effect does exist and show an inverted-U correlation between leverage and firm value. The policy implication from this study is that it is possible to identify the definitive level beyond which a further increase in debt financing does not improve proportional firm’s value.

Chowdhury and Chowdhury (2010) tested Miller and Modigliani (1958) and Miller and Modigliani (1963) arguments that the influence of debt-equity structure on the value of shares given different sizes, industries and growth opportunities of the companies incorporated in Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE) of Bangladesh. For the robustness of the analysis, they drew samples from the four most dominant sectors of industry i.e. engineering, food and allied, fuel and power, and chemical and pharmaceutical to provide a comparative analysis. A strong positive correlation is evident from the result of their empirical findings. When stratified by industry, it was found that to maximise the wealth of shareholders, it requires a perfect combination of debt and equity. On the other hand, the cost of capital has an inverse correlation in this decision. Therefore, it has to be as minimum as possible. This is also seen in the result of their study that by changing the capital structure composition, a firm can increase its value in the market. Nonetheless, this could be a significant policy implication for finance managers, since they can utilise debt to form optimal capital structure so as to maximize the wealth of shareholders.

In a Nigerian study, Ogbulu and Emeni (2012) produce evidence on the impact of capital structure on firm’s value. The study utilised a sample of 124 companies quoted on the NSE covering only the year 2007. Using ordinary Least Square method the study reveals that in an emerging economy like that of Nigeria, equity capital as a component of capital structure is irrelevant to the value of a firm, while Long-term-debt was found to have a significant impact on the firm’s value. Thus, the study recommends that firms should employ more long-term-debt than equity capital in financing their operations. This is because it results in a positive impact on firm’s value. Another Nigerian study by Collins et al. (2012) examines the impact of the firm’s capital structure on its market value. The study uses a sample of thirty nine (39) non-financial listed companies for the period between 2005 and 2009. The regression results show a significant positive relationship between debt-equity and firm’s value. In contrast, a negative relationship between the firm’s total-debt/total-capital ratio and its market value is established. Furthermore, Abiodun (2012) investigates the relationship between return on equity (ROE) and the capital structure of ten (10) Nigerian manufacturing firms from 2000 to 2009. The study finds that there is an optimal capital structure under trade-off theory in the manufacturing firms. At the same time, a positive relationship between capital structure and firm performance measured in terms of ROE is also found. Further, the finds that there is relationship between the distribution of debt-ratio and corporate’s performance. Thus, the finding is consistent with trade-off theory. In addition, the result is also consistent with the hypothesis that the corporate’s performance is a nonlinear function of the capital structure.

With the view to providing evidence on the impact of capital structure on the firm’s value in Ghana, Antwi, Mills and Zhao (2012), conducts a cross-sectional study utilizing annual reports and accounts of a sample of thirty four (34) quoted companies on the Ghana Stock Exchange (GSE) for the year 2010. The study employs Ordinary Least Square (OLS)
regression as the method of analysis. The result of the study reveals that equity capital as a component of capital structure is relevant to the value of a firm, and Long-term-debt was also found to be the major determinant of a firm’s value.

A Brazilian study by Loncan and Caldeira (2014) uses all publicly listed as sample to analyse the relationship between capital structure and firm’s value. The study covers a period of ten years, that is, between 2002 and 2012. The study discloses that short-term debt, long-term debt and financial constraint have negative managerial effects on the firm’s value. This suggests the presence of a risk-averse behaviour of investors in relation to debt.

From the above reviewed studies, it is obvious that the argument of most scholars is that capital structure has impact on firm’s value, based on the existence of the tradeoff between the advantages and disadvantages of the sources of finance. It is, therefore, important that for the management to take into cognizance the advantages and disadvantages of various sources of finance when deciding the sources of financing their capital. These will attract investors which in turn help in maximising firm’s value.

3. Research Methodology

This study utilised ex-post facto research design, because the variables of the study are extracted from the annual reports and accounts of the DMBs as well as from the NSE Annual Fact books. The relationship between capital structure and firm value of Nigerian Listed Deposit Banks is investigated in this study. The data regarding to capital structure and firm value was collected from the annual reports and accounts of the sampled banks. The data belongs to seven listed DMBs for nine (9) years (2006-2014). The banks were selected on the basis of their operation throughout the period covered in the study and the availability of relevant data for the study.

The population of the current study covers all Nigerian Listed Deposit Money Banks as presented in Table 1 below.

Table 1: Population of the Study

<table>
<thead>
<tr>
<th>S/N</th>
<th>Bank</th>
<th>Year of Incorporation</th>
<th>Year of Listing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Access Bank Plc</td>
<td>1989</td>
<td>1998</td>
</tr>
<tr>
<td>2</td>
<td>Diamond Bank Plc</td>
<td>1990</td>
<td>2005</td>
</tr>
<tr>
<td>3</td>
<td>Eco Bank Nigeria Plc</td>
<td>1985</td>
<td>2006</td>
</tr>
<tr>
<td>4</td>
<td>Fidelity Bank Plc</td>
<td>1988</td>
<td>2005</td>
</tr>
<tr>
<td>5</td>
<td>First Bank of Nigeria Plc</td>
<td>1894</td>
<td>1971</td>
</tr>
<tr>
<td>6</td>
<td>First City Monument Bank Plc</td>
<td>1982</td>
<td>2004</td>
</tr>
<tr>
<td>7</td>
<td>Guaranty Trust (GT) Bank Plc</td>
<td>1990</td>
<td>1996</td>
</tr>
<tr>
<td>8</td>
<td>Skye Bank Plc</td>
<td>1989</td>
<td>2005</td>
</tr>
<tr>
<td>9</td>
<td>Stanbic IBTC Bank Plc</td>
<td>1989</td>
<td>2005</td>
</tr>
<tr>
<td>10</td>
<td>Sterling Bank Plc</td>
<td>1960</td>
<td>1993</td>
</tr>
<tr>
<td>11</td>
<td>Union Bank of Nigeria Plc</td>
<td>1917</td>
<td>1970</td>
</tr>
<tr>
<td>12</td>
<td>United Bank for Africa (UBA) Plc</td>
<td>1948</td>
<td>1970</td>
</tr>
<tr>
<td>13</td>
<td>Unity Bank Plc</td>
<td>1996</td>
<td>2005</td>
</tr>
<tr>
<td>14</td>
<td>Wema Bank Plc</td>
<td>1945</td>
<td>1991</td>
</tr>
<tr>
<td>15</td>
<td>Zenith Bank Plc</td>
<td>1990</td>
<td>2004</td>
</tr>
</tbody>
</table>

Source: NSE Factbook, 2015/2016
The sample of the study is drawn from the population of the study (as presented in Table 1) using a using a four-point filter. Firstly, the bank must be listed in the Nigerian Stock Exchange on or before the beginning of the period covered in the study (2006), and remains with the same identity up to the end of the period covered in the study (2014). Secondly, the financial reports and account of a bank must be available for all the years covered in the study. Thirdly, the bank must have started using debt finance from the base period of the study (2006) for the complete years up to the end of the maximum period covered in the study (2014). Lastly, the end of the year market price per share of a bank (for all the years (2006-2014) covered in the study must be available in the Daily Official Listing of the NSE. Consequently, upon these criteria, eleven (11) DMBs qualify as sample of the study; Access Bank Plc, Diamond Bank Plc, Fidelity Bank Plc, First Bank of Nigeria Plc, Guaranty Trust Bank Plc, Stanbic IBTC Bank Plc, Sterling Bank Plc, Union Bank Plc, United Bank for Africa Plc, Wema Bank Plc and Zenith Bank Plc.

The variables of the study consist of dependent and independent. The dependent variable used in this study is Tobin’s Q. It is employed to represent the firm’s value as used in the studies by Chen (2002), Gosh (2007), Jiraporn and Liu (2008), Gill and Mathur (2011), Ruan et al (2011) and Sudiyatno, Puspitsari, and Kartika(2012). Tobin’s Q is equal to market capitalization plus accounting debt scaled to Total Assets.

The explanatory variables consist of independent variables and control variables. The first independent variable is Total Debts to Equity (TD/EQ). This is the ratio of total debt scaled to book value of equity as used in the studies of Hatfield et al. (1994), Rayan (2008), and Chen and Chen (2011). In order to find the non-linear relationship between TD/EQ and TOBINSQ, (TD/EQ)^2 is included in the model. The second independent variable is Total Debt to Total Assets (TD/TA). This represents the sum of both long-term debt and short-term debt scaled to total assets as used in the studies of Chen (2002), Jiraporn and Liu (2008), Cheng et al. (2010), Ruan et al. (2011), and Muhammad and Abdullah (2012). Similarly, for the purpose of determining the non-linear relationship between TD/TA and TOBINSQ, (TD/TA)^2 is also included in the model.

Two control variables are used; Size and Tangibility. Size (SIZ) is measured in terms of natural logarithms of total assets as used in the studies of Muhammad (2010), Collins et al. (2012) and Loncan and Caldera (2014). The present study adopts this measure. But Tangibility (TANG) is measured as fixed assets divided by total assets. This formula was used by Frank and Goyal (2007), Huang and Song (2000), Jiraporn and Liu (2008) and Muhammad (2010).

The studies of Martinez-Sola, Teruel & Martinez solano (2013) and Umar (2015) established the non-linear relation between cash holding in relation to firm value and financial performance respectively serve as guides to the present study.

Furthermore, going by the above variables, the following model is developed;

\[
\text{TOBIN'S Q} = a_0 + \beta_1 \text{TDEQ}_{it} + \beta_2 (\text{TDEQ}_{it})^2 + \beta_3 \text{TDTAQ}_{it} + \beta_4 (\text{TDTA}_{it})^2 + \beta_5 \text{SIZ}_{it} + \beta_6 \text{TANG}_{it} + \mu
\]

Where:
- \(a_0\), \(\beta_1\), \(\beta_2\), \(\beta_3\), \(\beta_4\), \(\beta_5\), and \(\beta_6\) are parameters to be estimated.
- \(\text{TOBIN'S Q}\) = Firm’s Value
- \(\text{TDEQ}_{it}\) = Total Debt to Book Value of Equity
- \(\text{TDTAQ}_{it}\) = Total Debt to Total Assets
- \(\text{SIZ}_{it}\) = Size of firm \(i\) at time \(t\)
- \(\text{TANG}_{it}\) = Tangibility of Firm \(i\) at time \(t\)
- \(\mu\) = error term.

In line with the study by Alimehmeti and Paletta (n.d) Martinez-Sola, Teruel & Martinez-solano (2013) and Umar (2015), the cut-off point of each model is determined by using the formula \(\beta_1 / -2*\beta_2\).
4.0 Results and Discussion

Table 2 presents the descriptive statistics for the variables used in the study, that is TOBINSQ, TDEQ, (TDEQ)$^2$, TDTA, (TDTA)$^2$, SIZ and TANG. The statistics include mean, standard deviation, minimum and maximum value.

**Table 2 : Descriptive Statistics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs.</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Min.</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOBINSQ</td>
<td>99</td>
<td>0.39</td>
<td>0.41</td>
<td>0.08</td>
<td>2.58</td>
</tr>
<tr>
<td>TDEQ</td>
<td>99</td>
<td>0.89</td>
<td>4.62</td>
<td>-1.94</td>
<td>45.17</td>
</tr>
<tr>
<td>(TDEQ)$^2$</td>
<td>99</td>
<td>21.89</td>
<td>205.09</td>
<td>0.00</td>
<td>2040.05</td>
</tr>
<tr>
<td>TDTA</td>
<td>99</td>
<td>0.07</td>
<td>0.08</td>
<td>0.00</td>
<td>0.62</td>
</tr>
<tr>
<td>(TDTA)$^2$</td>
<td>99</td>
<td>0.01</td>
<td>0.04</td>
<td>0.00</td>
<td>0.38</td>
</tr>
<tr>
<td>SIZ</td>
<td>99</td>
<td>8.81</td>
<td>0.44</td>
<td>7.26</td>
<td>9.53</td>
</tr>
<tr>
<td>TANG</td>
<td>99</td>
<td>0.04</td>
<td>0.02</td>
<td>0.00</td>
<td>0.11</td>
</tr>
</tbody>
</table>

Source: Generated by the Authors from the Annual Reports and Accounts of DMBs Using Stata Version 12.0

From Table 2 above it can be deduced that the number of observations for each variable is 99. This is in line with the number of the selected companies which is 11 and period of the study which covers nine (9) years. The mean statistics for Tobin’s Q implies that on average the Listed Deposit Money Banks have a value of 0.39 during the period. The maximum value that can be reached is about 2.58. The minimum value is 0.11 which can be attributed to the least debt used by UBA in 2014. The standard deviation of 0.41 signifies a variation of Tobin’s Q among the banks. The mean value of TDEQ is 0.89 implies that on average each of the sampled banks’ debts is 89% of its equity. The TDEQ has a minimum value of -1.94 while its maximum value is 45.17 times. The negative value occurs as a result of negative equity of Wema Bank Plc in 2009 and it implies that the total debt is 1.94 times the negative equity. The maximum value of the TDEQ occurs when the total debts of Wema Bank is 45.17 times of its equity in 2012. The TDEQ has 4.62 as standard deviation, which implies that there is significant variation in the TDEQ among the DMBs. Furthermore, it can also be observed from Table 2 that the minimum value of TDTA is 0.00. This can be attributed to the fact that UBA used less debt finance in 2007, although it rises significantly and continuously in the subsequent years. The maximum value of the TDTA is 0.62. This signifies 62% is the maximum percentage of the Total Debts in relation to the Total Assets. There is less variation in TDTA among the DMBs as indicated by the standard deviation, that is, 0.08.

With regard to the control variables, the SIZ is measured in terms of natural logarithms of total assets. The mean, minimum and maximum values for the size are 8.81, 7.26 and 9.53 respectively. The standard deviation of 0.43 indicates the diversity of the size among banks. TANG has a mean value of 0.039 indicating the proportional value of total assets of the banks that is non-current assets. The maximum value is 0.082. This is related to the fact that Wema Bank Plc has the highest proportion of non-current assets to total assets in the year 2008. The minimum value of 0.013 takes place because First Bank Plc has least proportion of non-current assets to total assets in 2013. The deviation from the mean is 0.013 this shows that there is no diversity of TANG among the banks.
4.2 Correlation Matrix

Table 3 below presents the correlation coefficients of the dependent and explanatory variables. The sign of the coefficients ranges from -1 to 1. This indicates the direction of the relationship between the dependent and the explanatory variables. The negative coefficient indicates an indirect relationship, while the positive coefficient implies a direct relationship. The closer the value is to 1 or -1 the stronger the correlation. In addition, Variance Inflation Factor (VIF) is also included in the correlation matrix table to test the multicollinearity among the explanatory variables.

Table 3: Correlation Matrix

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>TOBINSQ</th>
<th>TDEQ</th>
<th>(TDEQ)2</th>
<th>TDTA</th>
<th>(TDTA)2</th>
<th>SIZ</th>
<th>TANG</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOBINSQ</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDEQ</td>
<td>-0.0553</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>39.14</td>
</tr>
<tr>
<td>(TDEQ)2</td>
<td>-0.0331</td>
<td>0.9815</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>36.79</td>
</tr>
<tr>
<td>TDTA</td>
<td>0.1369</td>
<td>0.2598</td>
<td>0.2293</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>6.95</td>
</tr>
<tr>
<td>(TDTA)2</td>
<td>0.1117</td>
<td>0.1058</td>
<td>0.1223</td>
<td>0.8330</td>
<td>1</td>
<td></td>
<td></td>
<td>6.59</td>
</tr>
<tr>
<td>SIZ</td>
<td>-0.6320</td>
<td>-0.1028</td>
<td>-0.1024</td>
<td>-0.1924</td>
<td>-0.2125</td>
<td>1</td>
<td></td>
<td>1.09</td>
</tr>
<tr>
<td>TANG</td>
<td>0.0166</td>
<td>0.0707</td>
<td>0.0831</td>
<td>0.3435</td>
<td>0.3716</td>
<td>-0.2419</td>
<td>1</td>
<td>1.25</td>
</tr>
</tbody>
</table>

Source: Generated by the Author from the Annual Reports and Accounts of DMBs Using Stata Version 12.0

It can be inferred from Table 3 that the coefficients on the main diagonal of the correlation matrix indicates correlation between each variable and itself, and the value is 1 for all the variables indicating perfect positive a linear relationship. The explanatory variables; TDEQ, (TDEQ)² and SIZ are negatively related to the TOBINSQ while the rest are negatively related to the TOBINSQ. This implies that an increase in TDEQ, (TDEQ)² or SIZ would result in decrease in firm’s value represented as Tobin’s Q and vice versa. Conversely, TDTA, (TDTA)² and TANG have a direct correlation with the TOBINSQ.

It is also noticeable from the Table 3 that all the explanatory variables are positively related with one another except SIZ, which has a negative relationship with all other explanatory variables that come before it. TANG has also a negative relationship with SIZ. The VIF result in the Table 3 shows the presence of collinearity between TDEQ and (TDEQ)²since their individuals VIFs are greater than 10. However, according to Paul (nd) and Gujarati & Sangeetha (2007) collinearity is not a serious problem provided that the objective of regression analysis is prediction or forecasting as well as if the overall $R^2$ is higher. Moreover, Blanchard as cited in Gujarati & Sangeetha (2007) is one of the proponents of “Do Nothing School of Thought” as the best remedial measure for collinearity. He believed that collinearity does not show any weakness of regression or statistical technique in general, rather God’s will and there is no alternative other than to accept the data. This means that since the objective of the study is to predict the maximum or minimum point where the nature of the relationship changes (either from positive to negative and vice versa) the findings could still be accurate and hence reliable so long as the overall $R^2$ is much higher.
4.0 Regression Results on the Relationship between Capital Structure and the Financial Performance of DMBs

Table 4 presents the regression results on the association between dependent variables (TOBINS’Q) and explanatory variable (TDEQ, (TDEQ)^2, TDTA, (TDTA)^2, SIZ and TANG) of the Deposit Money Banks in Nigeria

Table 4: Regression Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>ROBUST OLS</th>
<th>RANDOM EFFECT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>Std. Error</td>
</tr>
<tr>
<td>Constant</td>
<td>1.9357</td>
<td>0.3778</td>
</tr>
<tr>
<td>TDEQ</td>
<td>-4.424</td>
<td>0.0811</td>
</tr>
<tr>
<td>(TDEQ)^2</td>
<td>-0.0165</td>
<td>0.0461</td>
</tr>
<tr>
<td>TDTA</td>
<td>0.9352</td>
<td>1.5607</td>
</tr>
<tr>
<td>(TDTA)^2</td>
<td>19.7058</td>
<td>9.7444</td>
</tr>
<tr>
<td>SIZ</td>
<td>-0.1851</td>
<td>0.0425</td>
</tr>
<tr>
<td>TANG</td>
<td>0.9371</td>
<td>1.1466</td>
</tr>
</tbody>
</table>

Robustness Test:

- Heteroskedasticity: 0.0000
- Normality test for residuals: 0.0000
- Hausman Specification test: 0.7095

Rsquared: 0.4926
Fvalue: 35.71

Rsquared:
- Within: 0.6238
- Between: 0.3312
- Overall: 0.4827
- Prob>F: 0.0000

Lagrangian Multiplier Test for Random Effects Prob > chibar2 = 0.0000

Source: Generated by the Author from the Annual Reports and Accounts of DMBs Using Stata Version 12.0

*** and ** indicate 1% and 5% significant levels respectively
Table 4 presents the OLS and GLS regression results of the variables. The OLS regression result is presented after carrying out various tests. As indicated in the Table 4 the result of the Breusch-Pagan / Cook-Weisberg test for heteroskedasticity shows that the variation of the residuals or error term is not constant since the probability (p-value) of the chi-square is 0.0000. This implies the absence of homoskedasticity in the model. Thus, problem was corrected by carrying out robust standard error. It could be seen also in the Table 4 that Skewness/Kurtosis tests for Normality has probability (p-value) of 0.0000. This signifies that the data is not normally distributed. Therefore, robustness regression was carried out as the remedy. In addition, a hausman specification test reveals that Random Effect regression result is more efficient than the Fixed Effect as evidenced by its probability, which is 0.7095. Hence, Random Effect is more efficient than the Fixed Effect. Further, since the Random Effect is selected, Breusch and Pagan Lagrangian multiplier test for random effects was conducted with the view to selecting either OLS regression or Random Effect. The test reveals that probability (p-value) of the chi-square is 0.0000, which is less than 0.1. Hence, the test is in favour of RE regression.

In the Table 4 RE regression result shows the overall $R^2$ value is 0.4827, which implies that the explanatory variables explain 48% variation in TOBINSQ while the remaining 52% change in TOBINSQ is explained by variables not captured in the model. The RE regression result as indicated in the Table 4 shows a significant negative relationship between Total Debts to Total Equity at 1% significance level while Total Debts to Total Equity Squared influences the TOBINSQ positively at 1% significance level. These signify that financing the banks with the debts has a significant negative relationship with the value of the DMBs up to a certain level, beyond which the DMBs’ value increases as the Total Debts is increased. The Total Debts to Total Equity cut-off level is thus estimated to be 25 times (-0.1014/-2*0.0020). This signifies that for the Total Debts should be at least 25 times the Total Equity for the DMBs to have their value improved.

In addition, the regression Table also shows that Total Debts to Total Assets has a significant positive relationship with the TOBINSQ whereas Total Debts to Total Assets Squared has a significant negative impact on the TOBINSQ. These imply that Total Debts to Total Assets has a positive impact on the value of the DMBs after reaching a certain level the value decreases as the ratio is increased. Thus, the optimal level is thus estimated to be 31% (2.8020/-2*-4.4846).

5.0 Conclusion

This study examined the relationship between capital structure and firm value in the Nigerian Listed Deposit Money Banks. The decision about the capital structure is very imperative due to its impact on satisfying the interest of the stakeholders, maximizing the wealth of shareholders and firm value. The achievement of a firm towards the satisfaction of the interest of the stake holders is not only determined by external factors such as regulatory authorities but also on the proportionate amount of debt and equity in their capital structure. This is because the maximization of the wealth is reflected in the market value of firms, and firm value is determined by capital structure. Thus, considering the fact that Deposit Money Banks serve as the engine hub of any economy, the objective of this study is to find a non-linear relationship between capital structure and firm value of the Deposit Money Banks in Nigeria with the view to establishing the optimal capital structure of the DMBs in Nigeria. The study establishes that the Total Debts should be at least 25 times the Total Equity for the DMBs to have their value improved. In addition, it has also been found that the optimal level of the Total Debts to Total Assets in relation to the value of the DMBs is to be 31%. The finding is similar to the law of variable proportion in economics, which states that continuous adding variable factors to a fixed factor will increase the total productivity up to a certain level at which any extra increase in variable factor will decrease the total productivity. It is also similar to the law of diminishing marginal utility which means that as consumer
consumes extra unit of a commodity, the total utility increases up to a saturation level beyond which it the total utility starts decreasing. Thus, this study recommends that the DMBs should solicit for more deposits and other related long term debts, which should be at least 25 times of their equity. The debts should be given to both new and existing customers as loans and advances after due consideration of the determinants of customers’ credit worthiness with the view to the maximising DMBs’ value n as well as reduce the incidence of non-performing loans facilities.
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1st International Conference Organised by Faculty of Social and Management Science, Bayero University-Kano.


ASSESSING ENTREPRENEURSHIP OPPORTUNITIES IN WASTE MANAGEMENT

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Abstract
The generation of wastes particularly solid wastes continue to increase at a rate faster than the ability of the agencies to improve the financial and technical resources needed to balance the growth. In Nigeria waste management is characterized by inefficient collection methods, insufficient coverage of the collection system and improper disposal of wastes. This characteristic and the clear inability of the Government owned agencies to cope with the increasing volume of urban wastes led to the creation of a vacuum in the collection, transportation, recovery, recycling and disposal of wastes generated in the country. This led to the involvement of individuals, groups and even communities as part of the private informal sector in waste management activities as a source of income or business undertaking. There are indeed small scale business opportunities in waste management for inspiring young entrepreneurs in different parts of the world especially in developing countries where open space dumping of wastes is practiced. This paper is theoretical in nature that aims at critically assessing entrepreneurship opportunities in waste management in Nigerian urban centres with the hope that the teeming unemployed youths will take up this opportunities for economic and sustainable development.

Key words: Assessing, Entrepreneurship, Opportunities, Waste management

Introduction
Entrepreneurship is the capacity and willingness to develop, organize and manage a business venture along with any of its risks in order to make a profit (BUSD, 2015). Entrepreneurship is also the ability to identify business opportunities, the willingness to harness the necessary resources to use the opportunities identified, the ability and further willingness to initiate and sustain appropriate actions towards the actualization of the business objectives (Osemeke, 2012). Entrepreneurship is characterized by innovation and risk taking and is an essential part of a nation’s ability to succeed in an ever changing and increasingly competitive global market. Hence even waste materials disposed in urban centers are today been used by entrepreneurs to create source of income and economically empower those who engaged in it as a source of their livelihood (Ladan, 2016).

There is great need for entrepreneurship development in Nigeria today more than ever before due to the high rate of unemployment and its effects on both people and the nation and the need for small and medium scale enterprises (Ayadike, Ikechukwu and Okechukwu, 2012). In different parts of the country particularly in the urban centers, there are several entrepreneurship activities and innovative ingenuities among the people particularly the youths who have developed enterprises in different sectors of the economy such as
agriculture and allied businesses, building and construction, information and telecommunication business, hospitality and tourism businesses, oil and gas business etc (Anyadike, Ikechukwu and Okechukwu, 2012).

In the area of environmental waste management businesses there is refuse collection/disposal, recycling and drainage/sewage construction businesses. This paper focuses on entrepreneurship opportunities in waste management. Waste management is the established procedure for the collection, transporting and disposal of waste products which is economically feasible and environmentally viable (Maigari, 2002). Waste Management is therefore the precise name for the collection, transportation, disposal or recycling and monitoring of waste to avoid its adverse effects over human health and environment (Wrfound, 2009). The primary objective of waste management today is to protect the public and the environment from potentially harmful effects of wastes. Some waste materials are normally safe, but can become hazardous if not managed properly.

Wastes are objects or substances that are discarded as they are worthless, unwanted, and defective or of value from human consumption, production or manufacturing process (Ayuba, 2005). Waste can be almost everything including food, vegetables, paper, leaves, newspaper, bottles, metals, scraps, junk vehicles, polythene bags, wrapping materials, construction materials, and chemicals from a factory or even radioactive materials. Human activities have always produce wastes but as industry and technology have evolved and human population has grown, waste management increasingly complex and a challenging task to municipal agencies particularly in developing countries like Nigeria.

The aim of the paper is to assess the entrepreneurship opportunities in waste management that abound in the urban centers of Nigeria which the people especially unemployed youth can utilize to be gainfully employed, for economic development.

Methodology

The methods used to collect data for the study are largely through secondary source which involved personal observation of the situation in some cities in Nigeria which have insight into the main subject of the paper. The author has also written papers that were empirical in nature on entrepreneurship in waste management, composting and recycling of wastes in some cities of Nigeria that were published in reputable international journals. This knowledge and experience is broadened by combining it with other sources to write this paper on Nigeria as a whole. Journal articles published in reputable journals on entrepreneurship were read and used to write the paper. Pictures of waste composting sites and metal scrap recycling workshops from one of the cities were snapped and incorporated into the study to illustrate some of the opportunities highlighted in the paper.. Other secondary sources used include internet sourced materials, textbooks, training manuals on waste resource management and presented conference papers.

The above sources were used to analyze the waste management situation in Nigeria, entrepreneurship opportunities in waste management, factors hindering effective utilization of entrepreneurship opportunities and offer recommendations towards making the people particularly the youths take up these opportunities for economic and sustainable development.

Waste Management Situation in Nigeria

Nigeria is a developing country located in the tropics with a land area of 923,768km² spanning across different geographical regions. Nigeria is the most populous country in Africa with 181,562,056 million inhabitants; the country is the seventh most populous country in the world. The population is distributed at 47.8% of the population living in urban centers and a rate of urbanization at 4.66% (CIA, 2016). Most urban centers are faced with the problems of population increase and rapid expansion which brought increasing pressure
on urban infrastructural facilities. One of these areas is in waste management where the existing system is not capable with the large volume of wastes generated and disposed on the surface (NAYD, 2015). Hence waste management is one of the major environmental problems in Nigeria which is particularly more glaring in the urban centers than in rural areas.

The method of waste disposal used in Nigeria like in most developing countries is open space dumping which is the dumping of waste materials in open expanse of land used as official open dumps that can be small scale as in refuse collection centres or large scale open dumps. The waste management agency will then collect the wastes from the open dump sites on daily, two days, three days or weekly basis. The waste management agencies determine the frequency of the collection based on available workers, machineries and equipments (Olukanni and Mnenga, 2015). The private sector is also involved in form of informal waste collectors who provide services for fees agreed with residential homes or commercial businesses.

In the urban centers the wastes that collect in the open dumps and road sides are collected and taken by collection vehicles to the disposal sites located mostly at the outskirts of the urban centers (Ogwueleka, 2009). The wastes accumulates at the large scale open dumps where people can go to collect the wastes for composting or land filling depending on the needs. However the rate of collection of wastes from the small scale open dumps in the urban centers is far less than the rate of generation and disposal of wastes from residential homes and commercial businesses. The result is that mounds of garbage in solid waste dumps surround many Nigerian cities which are very offensive to the eyes and nose (Maton, Dabi, Dodo and Nesta, 2016).

Amuda, Adebisi, Jimoda and Alade (2015), also reports that in many Nigerian cities it is common to find streets, motorable roads, river or stream channels practically blocked by solid wastes. The table below shows waste generation in nine selected urban centers in Nigeria.

### Table 1: Waste generation in some urban centres in Nigeria

<table>
<thead>
<tr>
<th>S/N</th>
<th>City</th>
<th>Population</th>
<th>Tonnage/Month</th>
<th>Density (kg/m²)</th>
<th>Kg/capita/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lagos</td>
<td>8,029,200</td>
<td>255,556</td>
<td>294</td>
<td>0.63</td>
</tr>
<tr>
<td>2</td>
<td>Kano</td>
<td>3,348,700</td>
<td>156,290</td>
<td>290</td>
<td>0.56</td>
</tr>
<tr>
<td>3</td>
<td>Kaduna</td>
<td>1,458,900</td>
<td>114,443</td>
<td>320</td>
<td>0.58</td>
</tr>
<tr>
<td>4</td>
<td>Port Harcourt</td>
<td>1,053,900</td>
<td>117,825</td>
<td>340</td>
<td>0.60</td>
</tr>
<tr>
<td>5</td>
<td>Onitsha</td>
<td>509,500</td>
<td>84,137</td>
<td>310</td>
<td>0.53</td>
</tr>
<tr>
<td>6</td>
<td>Ibadan</td>
<td>307,840</td>
<td>135,391</td>
<td>330</td>
<td>0.51</td>
</tr>
<tr>
<td>7</td>
<td>Makurdi</td>
<td>249,000</td>
<td>24,242</td>
<td>300</td>
<td>0.53</td>
</tr>
<tr>
<td>8</td>
<td>Abuja</td>
<td>159,900</td>
<td>14,785</td>
<td>280</td>
<td>0.66</td>
</tr>
<tr>
<td>9</td>
<td>Nsukka</td>
<td>100,700</td>
<td>12,000</td>
<td>370</td>
<td>0.44</td>
</tr>
</tbody>
</table>

Source: Ogwueleka, (2009)

The table above clearly indicates that the rate of waste generation is 25 million tons per year, at a daily rate of 0.44 – 0.66kg/capita/day while the density for the country ranges from 280 – 370kg/m³ (Maton, Dabi, Dobo and Nesla, 2016). This implies that in some years to come many Nigerian cities will be engulfed by immeasurable quantities of wastes. The table represents the situation as at the year 2009 as reported by a study by Ogwueleka (2009). Presently in the year 2016, seven years after, the populations of the cities listed above have
grown tremendously which has increased waste tonnage per month, waste density and kilogram per capita per day.

Most of the materials, substances or objects that compose municipal solid wastes include paper, vegetable matter, plastic metals, textiles, rubber, glass, dust, ash, ceramics, soil, bones etc. The table below shows the comparative analysis of municipal solid waste composition in some major cities in Nigeria.

Table 2: Composition of wastes in selected urban centers in Nigeria

<table>
<thead>
<tr>
<th>S/N</th>
<th>City</th>
<th>Organic (%)</th>
<th>Plastics (%)</th>
<th>Paper (%)</th>
<th>Textiles (%)</th>
<th>Metal (%)</th>
<th>Glass (%)</th>
<th>Others (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lagos</td>
<td>56.0</td>
<td>4.0</td>
<td>14.0</td>
<td>-</td>
<td>4.0</td>
<td>3.0</td>
<td>19.0</td>
</tr>
<tr>
<td>2</td>
<td>Nsukka</td>
<td>56.0</td>
<td>8.4</td>
<td>13.8</td>
<td>3.1</td>
<td>6.8</td>
<td>2.5</td>
<td>9.4</td>
</tr>
<tr>
<td>3</td>
<td>Kano</td>
<td>43.0</td>
<td>4.0</td>
<td>17.0</td>
<td>7.0</td>
<td>5.0</td>
<td>2.0</td>
<td>22.0</td>
</tr>
<tr>
<td>4</td>
<td>Ibadan</td>
<td>76.0</td>
<td>4.0</td>
<td>6.6</td>
<td>1.4</td>
<td>2.5</td>
<td>0.6</td>
<td>8.9</td>
</tr>
<tr>
<td>5</td>
<td>Onitsha</td>
<td>30.7</td>
<td>9.2</td>
<td>23.1</td>
<td>6.2</td>
<td>6.2</td>
<td>9.2</td>
<td>15.4</td>
</tr>
<tr>
<td>6</td>
<td>Makurdi</td>
<td>52.2</td>
<td>8.2</td>
<td>12.3</td>
<td>2.5</td>
<td>7.1</td>
<td>3.6</td>
<td>14.0</td>
</tr>
<tr>
<td>7</td>
<td>Maiduguri</td>
<td>25.8</td>
<td>18.1</td>
<td>7.5</td>
<td>3.9</td>
<td>9.1</td>
<td>4.3</td>
<td>31.0</td>
</tr>
</tbody>
</table>

Source: Ogwueleka (2009)

From the table above it could be seen that large percentage of the total solid waste generated in the cities is organic in nature that arises mostly from food preparations. The waste also consists of goods consumed and used by the people like plastics, paper, textiles, metals and glass. The others in the last column consist of dust, ash, ceramics, rubber, soil, bones and packaging materials.

The composition of wastes clearly indicates substances that entrepreneurs are taking opportunities from to produce process or fabricate products or goods that can be sold to generate income and become source of employment to many people particularly the unemployed youths. For example organic wastes can also be used to generate biogas. Plastics and paper are recycled into new products that are sold to the people. Metal scraps are recycled for the fabrication of various products by different enterprises in the urban centers of Nigeria.

Entrepreneurship Opportunities in Waste Management of Urban Cities in Nigeria

There are several opportunities that entrepreneurs have taken advantage of in order to earn income or set up small and medium scale enterprises in waste management in the urban centers of Nigeria. These opportunities are in:

(I) Waste Collection and Disposal – This is carried out by the informal private sector which comprises the activities of individuals, families, groups or small enterprises. They complement the work alone by the State Environmental Protection Agencies (SEPAs) by providing waste collection containers to residential houses which will be collected and disposed weekly on agreed fees to be paid at the end of the month. They are mostly operating in residential layouts, housing units or housing estates while some also operate in private clinics collecting and disposing medical wastes that could not be appropriately disposed in waste dumps. This private sector activity is labour intensive and as such provides employment opportunities for a large group of people (Ogwueleka, 2009). Examples include Seyolvicwal Nigeria Enterprises Lagos, Leon-Pek Limited Abuja, Integrated Waste Solutions Enugu, Shehu Bashayi and Sons Kaduna, Abbey Enterprises Ibadan, The Initiates Limited Port Harcourt. However
these enterprises have not been fully successful because they are profit driven and they are not monitored or regulated by the government (Ogwueleka, 2009).

(Waste Recycling – Recycling of wastes is a method of waste management that is environmentally desirable as it help to recover and reuse valuable materials that would otherwise be dumped as wastes. Different substances are recycled into new products like plastics; scrap metals, papers, glass etc. In some States such as Ondo there is Integrated Waste Recycling and Treatment Project established in June 2006 which has recorded huge success in transforming wastes generated in Ondo state to wealth by the development of various valuable products (Olanrewaju and Ilemobade, 2009). There are opportunities to establish this kind of project in other States of Nigeria that generate large volumes of wastes. In Kano city there is a large group of people comprising street boys, private sector enterprises, itinerant traders municipal solid waste collectors etc. that engage in plastic recovery system by supplying plastics to micro plastic waste processing plants who grind them into pellets for direct utilization by the plastic manufacturing industries (Nabegu, 2008). Thousands of individuals in Kano are dependent on plastic waste recycling in order to earn income to make a living. In many cities metal scrap recyclers have organize themselves into an enterprise such as the Hannun Kira (hand fabrication) Enterprises at Katsina city. The metal scrap recyclers use vehicle scraps, cans and tins, zinc and roofing sheets, old drums, gas cooker etc. to fabricate various household, agricultural and educational items which are displayed at their workshops and stalls for sale (Ladan, 2013). The figure below shows the workshops and products of the metal scrap recyclers at Katsina city.

![Fig. 1: Metal scraps recycling workshops and products on display for sale at Kofar Marusa Quarters, Katsina City](image-url)
(III) Waste Composting – In Nigeria a large percentage of the waste generated is organic in nature. It is 56.0% in some cities such as Lagos and Nsukka and as high 76.0% in Ibadan as can be seen on table 2. This clearly indicates that a lot of the wastes are and can be composted to supply manure to farmlands. A study by Ladan (2014) on composting as a sustainable waste management method in Katsina metropolis indicates that individuals particularly the youths between the ages of 15 – 30 years visit refuse collection centers and refuse dumps with simple implements like diggers and shovels to collect the composted wastes in sacks and bags for sale to farmers. The farmers either come to the composting sites to buy or buy at a local market on market days (Ladan, 2014). In some Northern States, there are new waste management plans have started recently which involves composting of wastes from large scale waste dump sites and the sale of organic fertilizers to farmers at subsidized rates. This plan if effectively carried out and sustained can serve as a source of revenue to the waste management agencies. The figure below shows one of the waste composting sites at an open waste dump in Katsina metropolis.

Fig. 2: Waste composting at an open waste dump at Unwala Quarters, Katsina City

(IV) Waste Scavenging – This involves the recovery of all re-usable and recyclable materials like plastics, aluminum, glass, paper, scrap metal etc. that were disposed in waste dump sites (Olugbenga, 2006). Many individuals comprising children, the youths, middle aged and even the old are driven into scavenging by poverty and the desire to make a living by moving and picking waste items or materials from one refuse collection centers or dump sites to another. In Abuja for example, a group of youths scavenge for different kinds of waste materials by pushing
wooden trucks that contain their working tools like shovels, rakes, shoes, pails, gun boots and gloves and visit waste dumps to collect broken bottles, bags, clothes, papers, metals pieces of plastics and glass and some unserviceable electronics (Ojonugwa and Isaac, 2015). These materials are then taken to a collection center where they are sorted, cleaned and reprocessed into materials bound for manufacturing. One of the scavengers operating in Abuja states that he can earn as much as N30,000 from the sales of bottles and iron (Ojonugwa and Isaac, 2015).

(W) Waste Resource Merchandise – This is carried out by two group of individuals involved in creating value out of wastes. The first group is a group of informal private sector involved in house-to-house recovery of waste materials like metals, iron, aluminum, old car batteries, bottles, plastics, cans etc. which are carried using specially built carts (Olugbenga, 2006). The materials they collect are reusable and recyclable materials that could have been disposed as waste in dump sites and they are then sold to resource merchants who are the second group. The resource merchants are a group of traders (merchants) involved in the purchase of all recovered recyclable and reusable materials form the first group of individuals (cart pushers). According to Olugbenga (2006), some of the resource merchants are involved in the exportation of some of the recovered resources to other countries thereby earning foreign exchange. They also have Local Purchasing Orders (LPOs) from companies to supply recovered materials that serve as raw materials (Olugbenga, 2006).

In Lagos, there are several waste resource merchants to collect waste materials to generate clean energy or recycle waste materials into useful products. One of these is a pilot project between Lagos State Waste Management Authority (LAWMA) and Midori Environmental Solutions established in the year 2012 to promote sustainability by turning waste materials to valuable materials. The project located at Ketu-Ikosi Fruits market processes 250kg of fruit wastes in an Anaerobic Digester on daily basis to generate between 15 – 20 cubic meters of biogas which in turn is used to power 8.5 KVA gas generator that produce electricity for the market which allows business to thrive (Ojo, 2015).

Factors Hindering Effective Utilization of Entrepreneurship Opportunities in Waste Management in Nigeria- There are several factors that hinders effective utilization of entrepreneurship opportunities in waste management which are:

(i) Hazards associated with handling waste exists which hinders individuals and groups from venturing into the waste business. These hazards include exposure to foul odours, dust, smoke, faecal matter, broken bottles and glass, heavy metals form batteries, toxic substances etc. Waste scavengers and those that engaged in waste composting are particularly at risk of contacting infectious diseases and prone to injury during their work. Olugbenga (2006), observes that there no access to adequate medical facilities or first aid treatment for any injury sustained during the operations of the informal private sector.

(ii) The attitude of the youths is a hindrance as many of the youths of today prefer to be engaged in white collar jobs and therefore do not want to be associated with the manual work involved in most of the waste businesses. The waste business is largely considered an unglamorous business area that the youth do not readily want to join or venture into. It is further observed that some youths do not like to be seen handling waste materials on refuse collection centers most of which are located along the roads where people pass daily (Ladan, 2016).

(iii) The entire activities of the informal private sector in waste management are not formalized by the government and her agencies. This non-formalization has
resulted in non-regulation and coordination of their activities. This means that there activities are not regulated and hence could not ensure or guarantee effective service particularly for the enterprises that engaged in waste collection and disposal in the urban centers. The activities of the informal private sector has being going on for many years without formalization and coordination which is reduce the services they provide and contribution to waste management in Nigeria.

(iv) Inadequate business space is a factor that hinders utilizing business opportunities in waste management. Some of the enterprise that engage in recycling and waste resource merchandise have no enough space to work, display or store their goods as they are located in makeshift zinc workshops and tents. For example, the Metal scrap recyclers in Katsina city presently are operating their workshops and exhibition stalls along a busy road outside Kofar Marusa which can be seen on figure 2. Olugbenga (2006) further observe that the informal private sector do not have good accommodation for their workshops with good portable water, electricity supply and at least basic sanitation system.

(v) There is lack of adequate data on the volume and composition of waste generated in some of the urban centers. Accurate, reliable and up-to-date data on the volume and composition of waste generated in the urban centers is lacking as many of the government waste management agencies do not have the means of gathering the needed data. This data is needed by the informal private sector to assess the viability of setting up of a particular waste business such as recycling, composting or waste collection and disposal in a particular city, town or residential areas. The establishment of projects like the Ondo State Integrated Waste Recycling and Treatment project needs data on the volume and composition of wastes to enable decision on the viability of such a project in other States of the federation.

(vi) Inadequate technology hinders the operation of the informal private sector businesses in waste management. The mode of operation of most of the entrepreneurs is more of manual than mechanical which affects the quality of the products fabricated by metal scrap recyclers or any other product made from waste materials. The metal scrap recyclers for example, uses simple tools and implements to fabricate household and agricultural products and it takes many hours before some products are made. The manual nature of their operations also brings exposure to several hazards and health risks.

Recommendations

The following recommendations are made in order to overcome the factors hindering effective utilization of the entrepreneurship opportunities in waste management in Nigeria.

(i) The Federal and State governments through their environmental protection agencies should assist the informal private sector in the provision of protective clothing such as hand gloves, mouth and nose cover, strong boots etc which will assist towards reducing the hazards that are associated with the handling of waste materials. They should also be given access to adequate medical facilities and first aid treatment through the public hospitals owned by the government.

(ii) There should be orientation of the youths to value the dignity of labour whether white or blue collar job. In line with this orientation, the youths should be made to understand that all work is work and that it is better to be engaged in work than staying redundant. They should also not bother about been seen doing their work as it is a form of their livelihoods.

(iii) The entire activities of the informal private sector in waste management should be formalized by the government and her agencies. Officials from the environmental
protection agencies should regularly monitor and coordinate the activities of the informal private sector with the view to ensure that they deliver a better service to the public towards improving and enhancing their operation and contributing towards creating entrepreneurship opportunities in waste management.

(iv) The Federal and State government should allocate land to enable the informal private sector to build their warehouses, workshops and exhibition stalls so that they move away from makeshift structures that were located along roads. Adequate amenities such as electricity and portable water supply should also be provided in the areas where the lands are allocated.

(v) The State Environmental Protection Agencies should strive to generate adequate data on the volume and composition of waste in their States. In line with this adequate and well trained technical staff should be employed to engage in research to generate adequate and reliable data needed to set up waste businesses by prospective entrepreneurs.

(vi) There should be improvement in technology so that the operations of the informal private sector move from the use of manual labour to mechanical or machine power with a view to improve the quality of their products and reduce the exposure to hazards and risks to their health. The Federal Government should assist them towards the importation of tools, implements and machineries in order to improve their operations and workmanship.

Conclusion

There are several business opportunities in waste management that entrepreneurs have taken advantage of to set up successful business ventures in countries such as Bangladesh, China and India that have large populations and generates large volumes of waste (KATSEPA, 2010). In Nigeria, a country with the largest population in the continent of Africa these opportunities exist. As such there are several entrepreneurs in the different urban centers that are involved in waste management which have been generating income, providing employment to people particularly the youths, and assist in creating clean and safe environment worthy of human habitation. The data collected and analyzed for this paper concludes that the entrepreneurship opportunities in waste management are many and are good enough to venture into them particularly when the factors hindering effective utilization of the opportunities are overcome. It is now hoped that the teeming unemployed youths will take up these opportunities for economic and sustainable development.
References
BOARD DIVERSITY AND FINANCIAL PERFORMANCE: PANEL DATA EVIDENCE FROM QUOTED DEPOSIT MONEY BANKS IN NIGERIA

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Abstract
This study assessed the effects of board diversity on financial performance of quoted deposit money banks in Nigeria, using secondary data from the annual reports of sampled banks over the period 2010-2014. The study adopted both descriptive and panel data regression techniques. Descriptive statistics in the form of mean, minimum and maximum values were used to provide a descriptive account of the data set while panel data regression in the form Pooled Ordinary Least Squares, Fixed Effects Model and Random Effects Model were used to assess the effects of the board diversity variables (gender diversity; ethnic diversity; foreign directorship; board composition and board size) on banks’ financial performance proxy by return on equity (ROE). The results revealed that gender diversity and foreign directorship have no significant effects on banks financial performance, while ethnic diversity, board composition and board size impacts negatively on banks financial performance measured by return on equity. The paper concludes among others that gender diversity was not a useful indicator of banks financial performance; and ethnic diversity, board composition and board size impact negatively on banks financial performance over the period of study. The paper recommends among others that since gender diversity have no significant effect on banks financial performance and ethnic diversity impacts negatively on banks financial performance, quoted deposit money banks in Nigeria should focus on appointing directors with requisite qualifications, training, skills and experience rather than attempt to maintain gender balance and ethnic representations on the board.

1.0 Introduction
The composition and structure of the board is of fundamental significance in assessing a board’s ability and success in achieving its objectives. The importance of a diverse board cannot be overemphasized as diversity results in injection of essential skills, ethnicity, cultures and perspectives on wide range of issues (Society for Corporate Governance in Nigeria, 2014). Boards around the world are mainly made up of men, with only small percentage as female directors. In this regard, Catalyst (2003) contended that even in the United States (US), the number of women on the boards remains small, and Catalyst (2005) reported that only 13.6 percent of the fortune 500 board seats were held by women. Still on fortune 500, Catalyst (2005) documented that the number of women on board decreased from eight (8) in 2003 to seven (7) in 2005, and in 2004, 31 percent of the 100 most capitalized British companies quoted on the Financial Times Stock Exchange (FTSE) had no women directors. Additionally, in Australia; United Kingdom (UK); Germany; France; Singapore;
Spain; Japan and among many others, the number of women board directors are less than 10 as reported by Dutta and Bose (2006). Conversely, Catalyst (2005) asserted that in Norway, women account for more than 25 per cent of directors on the board. This is because the country’s federal legislation required that all boards have at least two (2) women by 2006 and 40 per cent women by the 2008.

The issue of board diversity and corporate governance in Nigeria has not received serious attention and concern. It was not until in November 2003 that a code of corporate governance was developed in Nigeria, which spelled out specific guidelines/recommendations on board compositions of public companies, and even at that, not all the codes addressed the issue of diversity. In this regard, In CAMA 2004, there are only two sub-sections related to board composition and nothing was mentioned about diversity. In addition, the Central Bank of Nigeria’s Code of Corporate Governance of Banks and Discount Houses in Nigeria 2014 did not mention anything about diversity. The National Insurance Commission (NAICOM) Code of Corporate Governance published in 2009 did not make provisions for gender diversity. Conversely, in the Securities and Exchange Commission’s 2011 Code of Corporate Governance for public companies, gender diversity was clearly stated. Section 4 (1) provides that “The Board should be of a sufficient size relative to the scale and complexity of the company’s operation and be composed in such a way as to ensure diversity of experience without compromising independence, compatibility, integrity and availability of members to attend meetings”.

The study covers the period 2010-2014. The beginning year corresponds to the year banks in Nigeria prepare their financial statements using uniform financial year i.e. the Gregorian calendar year end. The study period also correspond to the period Securities and Exchange Commission (SEC) update their code of corporate governance. The end year 2014 corresponds to the year CBN code of corporate governance was updated. Additionally, the five-year period was adopted to avoid measurement errors associated with short-term instability.

As noted by Sanda, Mikailu and Garba (2005), the relative neglect of corporate governance in Nigeria’s public policy may be responsible for the paucity of empirical works in this area of corporate governance. Evidence from empirical research on the relationship between corporate diversity and firms’ performance is mixed and inconclusive. There are very few empirical studies in Nigeria linking Board Diversity and Firms’ Performance. We only know of empirical studies in Nigeria by Oba and Fodio (2013), Omoye and Eriki (2013) and Garba and Abubakar (2014). While Oba and Fodio (2013) used only gender diversity to represent board diversity, Omoye and Eriki (2013) measured board diversity using only the 3 major ethnic groups in Nigeria to represent diversity, and Garba and Abubakar (2014) focused only on quoted firms’ from the insurance sector of the Nigerian Stock Exchange (NSE). This study extends the period of the previous studies by investigating the effects of board diversity on performance of quoted deposit money banks in Nigeria using the period 2010-2014. To the best of our knowledge, there in no study in Nigeria that specifically addressed the relationship between board diversity and firms’ performance using evidence from Nigerian quoted deposit money banks. This is the gap in knowledge that this study intends to fill.

The main objective of this study is to investigate the effects of board diversity on performance of quoted deposit money banks in Nigeria. Specifically, the following objectives were achieved:

i. To investigate the effects of gender diversity on performance of quoted deposit money banks in Nigeria.

ii. To assess the effects of ethnic diversity on performance of quoted deposit money banks in Nigeria.
iii. To determine the effects of foreign directorship on performance of quoted deposit money banks in Nigeria.
iv. To examine the effects of board composition on performance of quoted deposit money banks in Nigeria.
v. To ascertain the effects of board size on performance of quoted deposit money banks in Nigeria.

The study tested the following hypotheses:

i. \( H_01: \) Ethnic diversity has no significant effect on performance of quoted deposit money banks in Nigeria.
ii. \( H_02: \) Gender diversity has no significant effect on performance of quoted deposit money banks in Nigeria.
iii. \( H_03: \) Foreign directorship has no significant effect on performance of quoted deposit money banks in Nigeria.
iv. \( H_04: \) Board composition has no significant effect on performance of quoted deposit money banks in Nigeria.
v. \( H_05: \) Board size has no significant effect on performance of quoted deposit money banks in Nigeria.

This paper is structured into six sections. Section one is this general introduction. Section two presents the literature review which highlights the empirical studies on the main variables of study. Section three presents the theoretical underpinning of the study. Section four discusses the methodology of the research and in section five, results and discussion of findings is presented. The last section presents the conclusions that were drawn, and recommendations that were offered to the Chief Executive Officers’ of deposit money banks and their regulatory authorities in Nigeria.

2.0 Literature Review

This section presents the empirical studies on board diversity and firms’ performance conducted around the globe.

Erhardt, Werbal and Shrader (2003) using correlation and regression analyses found positive association between gender diversity measured as the percentage of women on board of directors and firms’ performance proxy by return on assets and investment. Oba and Fodio (2013) in their study “Boards’ Gender Mix as a Predictor of Financial Performance in Nigeria: An Empirical Study” found that gender diversity has positive impact on financial performance.

Carter, D’Souza, Simkins and Simpson (2007) using the results of three-stage least-squares estimation found that gender diversity has a positive effect on financial performance measured by Tobin’s’ Q. Adams and Ferreira (2002) and Carter, Simkins and Simpson (2003) all found significant positive relationship between gender diversity and firms’ performance represented by Tobin’s Q. Shrader, Blackburn and Iles (1997) did not find any significant relationship between gender diversity and firms’ performance proxy by profit margin, return on asset (ROA) and return on equity (ROE). Similarly, Marimuthu and Kolandaaisamy (2009) did not find any significant relationship between gender diversity and firms’ performance in Malaysian companies. Smith, Smith and Verner (2006) discovered a positive relationship between gender diversity and financial performance. They also found evidence in support of unidirectional causality running from diversity to firms’ performance. Garba and Abubakar (2014) study’s of insurance companies Nigeria discovered that gender diversity has significant positive effect on firms’ performance measured by ROE and ROA using Feasible Generalized Least Squares (FGLS) and Random Effects estimators.

Additionally, Carter et al. (2007) found that ethnic diversity impacts firms’ performance through audit, executive compensation and director nomination. Adams and Ferreira (2002) and Carter et al. (2003) uncovered that the percentage of ethnic minority
directors is positively related to firms’ performance proxy by Tobin’s Q. Omoye and Eriki (2013) found significant but negative relationship between ethnic diversity and performance of quoted firms’ in Nigeria. Garba and Abubakar (2014) did not find any significant relationship between ethnic diversity and firms’ performance proxy by Tobin’s Q, ROA and ROE.

Furthermore, Sanda, Garba and Mikailu (2008), Tornyeva and Wereko (2012) and Abubakar and Garba (2014) all found a significant positive relationship between foreign directorship and firms’ performance by proxy of the proportion of foreign directors on the board and firms’ financial performance.

Sanda et al. (2005) that examined corporate governance mechanisms and firm financial performance in Nigeria did not find any significant relationship between board composition and firm performance. However, Garba and Abubakar (2014) uncover evidence of significant but negative relationship between board composition and firms’ performance surrogated by Tobin’s Q. Main, Bruce and Buck (1996) study’s of Ghanaian banks found that significant relationship exist between board composition and performance measured by ROA. Ranti (2011) found that financial performance had a significant negative relationship with board composition.

Bebeji, Mohammed and Tanko (2015) found that board composition has a significant positive effect on performance of banks in Nigeria. Kyereboah-Coleman (2007) argued that large boards impact more positively than small boards.

Paul, Friday and Godwin (2011) did not find any significant relationship between board composition and all the 5 measures of performance used in their study. Similarly, Bhaget and Black (2000) did not find any significant association between board composition and performance measures (Tobin’s Q, ROA, asset turnover and stock returns).

Yermack (1996) examined the relationship between board size and firm performance, and found that firms with smaller board size had better performance. Brown and Caylor (2004) found high positive correlation between board sizes of 6 and 15 members and both measures of return on equity and net profit margin than other board sizes. Younas, Mahmood and Saeed (2013) uncovered evidence that suggests a positive relationship between board size and firms’ performance. Duke II and Kankpang (2011) found significant positive relationship between board size and both performance measures of ROA and profit margin.

Conversely, Ranti (2011) found that financial performance had a significant negative relationship with board size. Obradovich and Gill (2012) found that larger board size negatively impacts the value of American firms. Mak and Kunsadi (2005) found a negative link between board size and value of Singapore firms. Gill and Mathur (2011) found among others that board size negatively affects firms’ value. Okwuchukwu, Ezeudu and Patience (2015) found a significant negative relationship between board size and ROE. Bebeji et al. (2015) analyzed the effects of board size and board composition on the performance of Nigerian banks. They found that board size has a significant but negative effect on performance measured by ROE and ROA. However, Garba and Abubakar (2014) did not find any significant relationship between board size and firms’ performance.

3.0 Theoretical Framework

The theoretical underpinning of this study is the Stakeholder theory. This theory is based on the notion that board of directors’ who are not owners of a company are expected to maximize the wealth of all stakeholders rather than shareholders alone. The stakeholder theory unlike the agency costs and the stewardship theories seek to protect the interests of all stakeholders’ rather than maximize shareholders interests alone. Additionally, the stakeholders’ theory incorporates accountability to a broad range of stakeholders’ rather than shareholders alone (Freeman, Wicks & Parmar, 2004). The use of diversified mechanism
according to (Garba & Abubakar, 2014) to control the excesses of Chief Executive Officers (CEOs) may include gender diversity and other diversity related variables.

This study is deeply rooted in the Stakeholder theory because the theory more than any other theory of corporate governance encourages the use of diversity and seeks to protect the interests of all stakeholders on the board.

4.0 Methodology

The population of the study consists of all the 12 deposit money banks quoted on the Nigerian Stock Exchange as the 31st December 2014. Two (2) quoted deposit money banks (DMBs) with missing data from 2010 through to 2014 were excluded from the population and this may be due to the inability of the banks to make available their annual reports either to the NSE or at their corporate websites, resulting to loss of data, leaving a final population of 10 deposit money banks. The number of banks used in this study is shown in Table 1 below:

Table 1: List of Deposit Money Banks

<table>
<thead>
<tr>
<th>S/N</th>
<th>Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Access Bank Nigeria Plc</td>
</tr>
<tr>
<td>2</td>
<td>Diamond Bank Plc</td>
</tr>
<tr>
<td>3</td>
<td>Fidelity Bank Plc</td>
</tr>
<tr>
<td>4</td>
<td>Guaranty Trust Bank Plc</td>
</tr>
<tr>
<td>5</td>
<td>Sterling Bank Plc</td>
</tr>
<tr>
<td>6</td>
<td>United Bank for Africa Plc</td>
</tr>
<tr>
<td>7</td>
<td>Union Bank of Nigeria Plc</td>
</tr>
<tr>
<td>8</td>
<td>Unity Bank Plc</td>
</tr>
<tr>
<td>9</td>
<td>Wema Bank Plc</td>
</tr>
<tr>
<td>10</td>
<td>Zenith Bank Plc</td>
</tr>
</tbody>
</table>

Source: NSE Daily Official Lists 2010-2014

Data was sourced from the annual reports/financial statements of all the 10 banks used in this study for the period 2010-2014. Data on gender diversity; ethnic diversity; foreign directorship; board composition and board size were sourced and computed using information on Corporate Governance section of the annual reports of quoted DMBs. Data on return on equity (ROE), the only dependent variable used in this study was sourced and computed using information from the Profit and Loss Accounts of the banks in this study.

4.1 Variables Measurement

This subsection presents the dependent variable and independent variables used in this study, and their measurements. In measuring the study’s variables, we followed the procedure adopted by Garba and Abubakar (2014). The next Table presents the study’s variables and their measurements.

Table 2: Summary of Variables Measurement

<table>
<thead>
<tr>
<th>Variables</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE</td>
<td>Return on equity, a proxy for firms’ performance, measured by expressing net profit as a proportion of total equity value.</td>
</tr>
<tr>
<td>GENDISTY</td>
<td>Gender diversity, measured as the percentage of female directors on a board</td>
</tr>
<tr>
<td>ETHDISTY</td>
<td>Ethnic diversity, measured as a dummy variable taking the value 1 if the board consists of both Northerners and Southerners, and 0 otherwise.</td>
</tr>
<tr>
<td>FRNGDIR</td>
<td>Foreign directorship, measured as the percentage of foreigners on a board</td>
</tr>
</tbody>
</table>
BOARDCOM  Board composition, measured by taking the non-executive directors as a proportion of board size.

BOARDSZ  Board size, measured by taking the number of directors on the board of directors of a bank in a particular financial year.

Source: Adopted from Garba and Abubakar (2014)

4.2 Methods of Estimation

Descriptive and panel data techniques were used in this study. Descriptive statistics were used to describe the data set while panel regressions were used to assess the effects of board diversity on the performance of quoted deposit money banks in Nigeria. Panel regression model in the form of Pooled Ordinary Least Squares (POLS), Fixed Effects Model (FEM) and Random Effects Model (REM) were applied. The robust Heteroscedasticity-and Autocorrelation Consistent (HAC) standard errors have been applied before running the regression because of the presence of heteroscedasticity and autocorrelation.

The model developed by Garba and Abubakar (2014) has been adopted in the present study because Garba and Abubakar (2014) also investigated the relationship between corporate board diversity and performance of quoted insurance companies from the Nigerian Stock Exchange (NSE).

4.3 Model Specification

The theoretical model used in this study is given below:

\[ Y_{it} = \alpha_0 + \beta_1 X_{1it} + C_{it} + \mu_{it} \]  \quad (1)

Where \( Y_{it} \) = a measure of firms’ performance

\( \alpha_0 \) = intercept coefficient

\( \beta_1 \) = vector of coefficient of board diversity

\( X_1 \) = vector of measures of board diversity

\( i \& t \) = each firm i in year t

\( C \) = a unit specific error component

\( U \) = the remaining error component

The model can implicitly be re-written as follows:

\[ \text{FirmPerformance}_{it} = \alpha_0 + \alpha_1 \text{GENDISTY}_{it} + \alpha_2 \text{ETHDISTY}_{it} + \alpha_3 \text{FRGNDIR}_{it} + \alpha_4 \text{BOARDCOM}_{it} + \alpha_5 \text{BOARDSZ}_{it} + C_i + \mu_{it} \]  \quad (2)

Where: \( \alpha_0 \) = the intercept, \( \text{GENDISTY} \) = the measure of gender diversity

\( \text{ETHDISTY} \) = the measure of ethnic diversity

\( \text{FRGNDIR} \) = the measure of foreign directorship

\( \text{BOARDCOM} \) = the measure of board composition

\( \text{BOARDSZ} \) = the measure of board size

\( C_i \) = unit-specific error component

\( \mu \) = remaining error component

The model was run for Pooled-OLS, Fixed Effects and Random Effects estimators using ROE as dependent variable.

5.0 Results and Discussion of Findings

As mentioned in the methodology of this study, descriptive and regression analyses were used in analyzing the data set. The discussion in this section is presented under two main headings: descriptive and regression analysis. Each is discussed below:

5.1 Descriptive Analysis

Table 3 provides a descriptive account of the entire deposit money banks used in this study. The descriptive results revealed a mean value of 0.206198 for gender diversity,
signifying that on the average about 21 per cent of the directors’ of the board of quoted deposit money banks in Nigeria constitute female directors’. The minimum and maximum values for gender diversity stood at 0.0000 and 0.666700 respectively. These results indicated that while some quoted banks in Nigeria did not have any female director on their boards, other banks have as high as 67 per cent of their directors as females.

The descriptive results for ethnic diversity revealed a mean value of 0.98000. This implies that some quoted banks in Nigeria did not have ethnic representation on their board. Ethnic diversity was measured using dummy variable which takes the value 1 if a board has both northerners and southerners on their board and 0 otherwise.

Similarly, the mean value for foreign directorship stood at 0.0526116, which implies that only about 5 per cent of directors’ of quoted banks in Nigeria are foreigners. The minimum value of 0.0000 indicated that some banks did not have any foreigner on their board, while the maximum value of 0.25000 is an indication that some banks had up to 25 per cent of their directors’ as foreigners.

Additionally, the descriptive results in Table 3 also revealed a mean value of 0.599538 for board composition. This implies that about 60 per cent of the directors’ on the board of quoted banks in Nigeria are non-executive directors. This is a testimony that quoted DMBs in Nigeria complied with the code of corporate governance that stipulates that the number of non-executive directors on the board should exceed the number of executive directors. Again, the minimum value of 0.5000 is an indication that some banks had equal proportion of executive and non-executive directors. This is a clear violation of the code of corporate governance of Nigeria.

The average board size for the 10 quoted banks used in this study stood at 14 directors as against the minimum of 8 and maximum of 19. The results confirmed that no quoted bank in Nigeria is having a board size of less than 5 and a maximum of 20 as stipulated by the code of corporate governance of Nigeria. These findings further portrayed that quoted banks in Nigeria complied with the code of corporate governance during the period under investigation.

**Table 3: Descriptive Statistics**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MEAN</th>
<th>MINIMUM</th>
<th>MAXIMUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENDIVSITY</td>
<td>0.206198</td>
<td>0.000000</td>
<td>0.666700</td>
</tr>
<tr>
<td>ETHDIVSITY</td>
<td>0.980000</td>
<td>0.000000</td>
<td>1.000000</td>
</tr>
<tr>
<td>FRNGNDIR</td>
<td>0.0526160</td>
<td>0.000000</td>
<td>0.250000</td>
</tr>
<tr>
<td>BODCOM</td>
<td>0.599538</td>
<td>0.500000</td>
<td>0.733300</td>
</tr>
<tr>
<td>BODSZ</td>
<td>14.5800</td>
<td>8.00000</td>
<td>19.0000</td>
</tr>
<tr>
<td>ROE</td>
<td>-0.000381802</td>
<td>-3.94320</td>
<td>1.54470</td>
</tr>
</tbody>
</table>

*Source:* Computed from the Financial Statements of Sampled Banks for 2010-2014 using GRETL Statistical Software Package

The descriptive analysis of the only dependent variable as measured by return on equity (ROE) revealed a mean value of -0.000381802, signifying that on the average, some quoted banks used in this study generated a negative return for their shareholders’ during the period under review. However, a maximum value of 1.54470 is an indication that some banks generated a very high return on equity, which is about 1.5 times higher than the investment in equity.
5.2 Regression Analysis

This subsection provides regression analysis of the 10 quoted banks used in this study. The dependent variable (ROE) was regressed on the 5 independent variables: gender diversity, ethnic diversity, foreign directorship, board composition and board size using Pooled Ordinary Least Squares, Fixed Effects and Random Effects model. The analyses were carried out with the aid of relevant tables as presented below:

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Pooled OLS</th>
<th>Fixed Effects</th>
<th>Random Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONST</td>
<td>4.77292</td>
<td>4.17563</td>
<td>4.77292</td>
</tr>
<tr>
<td></td>
<td>(3.3883)***</td>
<td>(9.4271)***</td>
<td>(3.2459)***</td>
</tr>
<tr>
<td>GENDISTY</td>
<td>0.649882</td>
<td>2.35796</td>
<td>0.649882</td>
</tr>
<tr>
<td></td>
<td>(1.3120)</td>
<td>(1.9131)*</td>
<td>(1.0171)</td>
</tr>
<tr>
<td>ETHDISTY</td>
<td>-1.61026</td>
<td>-2.44236</td>
<td>-1.61026</td>
</tr>
<tr>
<td></td>
<td>(-4.2652)***</td>
<td>(-10.3847)***</td>
<td>(-2.4140)**</td>
</tr>
<tr>
<td>FRGNDIR</td>
<td>0.429478</td>
<td>-3.41114</td>
<td>0.429478</td>
</tr>
<tr>
<td></td>
<td>(0.4732)</td>
<td>(-1.7321)*</td>
<td>(0.3082)</td>
</tr>
<tr>
<td>BOARDCOM</td>
<td>-4.69223</td>
<td>-2.38385</td>
<td>-4.69223</td>
</tr>
<tr>
<td></td>
<td>(-1.9305)*</td>
<td>(-1.8543)*</td>
<td>(-2.4277)**</td>
</tr>
<tr>
<td>BOARDSZ</td>
<td>-0.0369461</td>
<td>-0.045269</td>
<td>-0.0369461</td>
</tr>
<tr>
<td></td>
<td>(-1.8139)*</td>
<td>(-0.8870)</td>
<td>(-0.8546)</td>
</tr>
<tr>
<td>R²</td>
<td>0.249529</td>
<td>0.479849</td>
<td>0.249529</td>
</tr>
<tr>
<td>F</td>
<td>2.925965</td>
<td>2.306299</td>
<td>2.925965</td>
</tr>
<tr>
<td></td>
<td>(0.022959)**</td>
<td>(0.022622)**</td>
<td>(0.022959)**</td>
</tr>
<tr>
<td>STD ERROR</td>
<td>0.597477</td>
<td>0.557713</td>
<td>0.590801</td>
</tr>
<tr>
<td>DURBIN-WATSON</td>
<td>1.964778</td>
<td>2.597524</td>
<td>1.964778</td>
</tr>
</tbody>
</table>

Significant at 10% (*), 5% (**), 1% (***)

Source: Computed from the Financial Statements of Sampled Banks for 2010-2014 using GRETL Statistical Software Package

Note: The values in parentheses for variables are t ratios and those against F-statistic are P-values.

The regression results in Table 4 revealed that gender diversity has no significant effect on banks’ financial performance in both Pooled-OLS and Random Effects models, but has a significant positive effect on banks’ financial performance at 10 per cent level using Fixed Effects model. Similarly, the regression results in Table 3 also revealed that ethnic diversity and board composition have significant but negative effect on banks’ financial performance in all the 3 models when ROE was used as proxy for firms’ performance.

Additionally, foreign directorship has no significant effect on banks’ financial performance in both Pooled-OLS and Random Effects models, but has a significant negative effect at 5 per cent level on banks’ financial performance under the Fixed Effects model.
Moreover, board composition has a significant but negative effect on banks’ financial performance in Pooled-OLS, Fixed effects and Random effects estimators. Board size has no significant effect on banks’ performance in Fixed Effects and Random Effects models, but has a negative but significant effect at 5 per cent level on banks’ financial performance in the Pooled-OLS model. Interestingly, all the three models: Pooled Ordinary Least Squares, Fixed Effects and Random Effects models are statistically significant and can be used to draw valid conclusions.

Since all the 3 models (Pooled-OLS, Fixed Effects and Random Effects) are statistically significant at 2 per cent level, we carried out 3 tests to choose the best out the 3 models. The next table presents the results of the F-test for best model selection between Pooled Ordinary Least Squares (POLS) and Fixed Effects Models. The null hypothesis is that the cross-sectional units all have common intercept i.e. Pooled-OLS is adequate. The decision rule is that if the test is not significant, the null hypothesis will not be rejected and Pooled-OLS model is considered more appropriate than Fixed Effects model and vice-versa.

Table 5: Results of the F- Test for Best Model Selection

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Model Comparison</th>
<th>P-values</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model a and b</td>
<td>Pooled OLS-Fixed Effects</td>
<td>0.12078</td>
<td>Pooled-OLS model selected</td>
</tr>
</tbody>
</table>

Significant at 10% (*), 5% (**), 1% (***)

Source: Extracted from the GRETL Statistical Software Output
Key: a = Pooled-OLS, b = Fixed Effects

The results of the F-test in Table 4 for best model selection between Pooled-OLS and Fixed Effects estimators favoured the selection of Pooled-OLS model over the Fixed Effect model. However, using the rule of thumb, a model with higher R² and low standard error is judged as the best. If we are to follow the rule, Fixed Effects Model will be selected (see Table 4).

The next Table presents the result of the Hausman Specification Test for best model selection between Fixed Effects and Random Effects models. The null hypothesis is that Fixed Effects model is not more appropriate than the Random Effects model. If the test is statistically significant, null hypothesis will be rejected and Fixed Effects model considered as more appropriate. But, if the test is not statistically significant, we fail to reject the null hypothesis and conclude that the Random Effects model is more appropriate.

Table 6: Results of the Hausman Specification Test for Best Model Selection

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Model Comparison</th>
<th>P-value</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model b and c</td>
<td>Fixed Effects- Random Effects</td>
<td>0.00072555***</td>
<td>Fixed Effects model selected</td>
</tr>
</tbody>
</table>

Significant at 10% (*), 5% (**), 1% (***)

Source: Extracted from the GRETL Statistical Software Output
Key: b = Fixed Effects, c = Random Effects

The results of Hausman Test in Table 5 for best model selection between Fixed Effects and Random Effects models favoured the selection of Fixed Effects model over Random Effects model.

The next Table presents the results of the Breusch-Pagan Lagrange Multiplier (LM) test for best model selection between Random Effects and Pooled-OLS estimators. The null hypothesis in the LM test is that variance various across entities is zero, i.e. no significant difference across units (no panel effects).
Table 7: Results of the Breusch-Pagan Lagrange Multiplier (LM) Test

<table>
<thead>
<tr>
<th>Model Comparison</th>
<th>P-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Random- Pooled-OLS</td>
<td>0.762463</td>
<td>Pooled-OLS model selected</td>
</tr>
</tbody>
</table>

Significant at 10% (*), 5% (**), 1% (***)

Source: Extracted from GRETL Statistical Software Output

The result of the Lagrange Multiplier Test for best model selection in Table 7 suggests the selection Pooled-OLS model over the Random Effects model. On this basis, this study draws its conclusion based on the Pooled-OLS model.

5.3 Discussion of Findings

The discussion of findings was based on the Pooled-OLS model. This follows the results of the 3 tests carried out for best model selection among Pooled-OLS, Fixed Effects and Random Effects estimators which favoured the selection of Pooled-OLS over Fixed and Random Effects models. The choice of Pooled-OLS over Fixed and Random Effects models did not come as a surprise because all the cross-sectional units are from the same sector i.e. the banking sector and we did not expect to see high degree of heterogeneity among the banks. Again, the choice of POLS over FEM and REM is a testimony that the cross-sectional units i.e. the banks have the same group intercepts and no panel effects respectively.

The regression results revealed that gender diversity has no significant effect on banks’ performance under the Pooled-OLS model when ROE was used to measure banks’ financial performance. This finding is contrary to Erhardt et al. (2003), Oba and Fodio (2013), Carter et al. (2007), Adams and Ferreira (2002), Carter et al. (2003), Smith et al. (2006) and Garba and Abubakar (2014), but consistent to those of Shrader et al. (1997) and Marimuthu and Kolandaaisamy (2009), who did not find any significant relationship between gender diversity and firms’ performance.

The regression results also revealed that ethnic diversity has a significant but negative effect on banks’ financial performance in Pooled-OLS, Fixed Effects and Random Effects models when ROE was used to measure banks’ financial performance. These findings are contrary to those of Adams and Ferreira (2002), Cartel et al. (2003) and Garba and Abubakar (2014), but in agreement with the finding of Omoye and Eriki (2013).

Similarly, the regression results further revealed that foreign directorship has no significant effect on banks’ financial performance under the Pooled-OLS model and Random Effects model when ROE was used as surrogate for banks’ financial performance. This implies that the presence of foreign directors on the board of deposit money banks in Nigeria does not impact their financial performance. These findings are contrary to those of Sanda et al. (2008), Tornyeva and Wereko (2012) and Garba and Abubakar (2014) who all found significant positive relationship between number of foreign directors on the board and firms’ performance.

Furthermore, the regression results further revealed that board composition has a significant but negative effect on banks’ financial performance when ROE was used as proxy for financial performance. The results suggested that the number of non-executive directors on the board hurts financial performance. This finding is in agreement with Garba and Abubakar (2014) and Ranti (2011), but contrary to those of Sanda et al. (2005), Paul et al. (2011) and Bhaget and Black (2000); who did not find any significant relationship between board composition and firms’ performance, and Bebeji et al. (2015) who found significant positive relationship between board composition and firms’ performance.

Additionally, board size has a negative but significant effect on banks’ financial performance in the Pooled-OLS model when ROE was used as a measure of banks’ financial
performance. This shows that the number of directors’ on the board of quoted deposit money banks in Nigeria affect financial performance adversely. This finding is contrary to those of Brown and Caylor (2004), Younas et al. (2013) and Duke II and Kankpang (2011) who found significant positive relationship between board size and firms’ performance, and Sanda et al. (2005) and Garba and Abubakar (2014), who did not find any significant relationship between board size and firms’ performance. However, the finding is consistent with those of Ranti (2011), Obradovich and Gill (2012), Mak and Kusnadi (2005), Okwuchukwu et al. (2015) and Bebeji et al. (2015) who all reported negative but significant relationship between board size and firms’ performance.

6.0 Conclusions and Recommendations

Based on the major findings of this study, the following conclusions were drawn:

Gender diversity is not a useful indicator of firms’ performance proxy by return on equity (ROE). Increase in gender diversity i.e. the number of female on the board of quoted deposit money banks in Nigeria will not impact positively or negatively on banks’ financial performance.

Ethnic diversity impacts negatively on banks’ financial performance. Increase in ethnic representation on the board of quoted banks in Nigeria will hurt their financial performance.

Foreign directorship will not impact significantly on the financial performance of quoted banks in Nigeria. The presence of foreigners’ on the board of banks in Nigeria will not add value to their financial performance.

Board composition and board size impact negatively on banks’ financial performance. In other words, an increase in the proportion of non-executive directors’ on the board and by extension increase in the number of directors’ on the board will reduce banks’ financial performance.

Based on the major conclusions, the following recommendations are made for consideration by Chief Executive Officers’ (CEOs) of quoted deposit money banks and their regulatory authorities.

1. Since the number of female directors on the board of banks in Nigeria did not impact on banks’ financial performance, banks should focus on appointing directors’ with requisite skills, knowledge and needed wealth of experience rather than attempt to maintain gender balance on the board.

2. Since ethnic diversity impacts negatively on the financial performance of Nigerian quoted banks, increase in ethnic representation on the board will hurt financial performance. Banks should therefore, focus on appointing directors with the requisite qualifications, training, skills and wider exposure in the financial world rather than ethnic consideration.

3. Appointing foreign directors on the board will not enhance financial performance. Banks should therefore, focus on indigenous directors with the afore-mentioned qualities in “2” above.

4. Board size impact negatively on banks’ financial performance. Increasing the current size of the board will not do any good to financial performance; therefore, quoted deposit money banks in Nigeria should reduce their board size in order to improve financial performance.

5. Increase in the number of non-executive or outside directors on the board will hurt banks’ financial performance. Therefore, banks should reduce the number of non-executive directors on their board, but the reduction should be done in such a way that the number of non-executive directors does not fall below the number of executive directors as required by the Code of Corporate Governance of Nigeria.
References


ABSTRACT

Every day, accountants face dilemmas and critical situations that requires ethical decision making. At the same time, they must cooperate with government agencies, and respond to legislation on fraud and corruption. This paper discussed how to strike the right balance between confidentiality and legal liabilities-as well as public expectations and public interest. It also shared insights and perspectives on how accountants can better be supported in doing “the right thing.” The primary source of data was collection was adopted, with the aid of the questionnaire and interview, which were used as instruments to collate data, and was analyzed using the chi-square($x^2$). It was found that there are sufficient agencies established to reduce corruption in Nigeria. Accountants are one of the strong pillars that can fight corruption in Nigeria, they have not been performing exceptionally well in curbing the menace of corruption in Nigeria. Though the roles of accountants are not to detect fraud but they are required to perform their work with due care and efficiency to detect and report any fraud and corrupt practices. Also, it was revealed that the agencies have been able to reduce corruption; respondents were of the opinion that some of the institutions do abandoned their object and work to satisfy the government in power. Similarly, the institutions need to be revamped structurally and operationally. Finally, it was revealed that there is crisis in the institutional and policy management, hence, the governments, where possible, create new agencies backed by law and make them autonomous.

Keywords: Accountants, Government Agencies, Corruption, Fraud, Confidentiality, Public interest.

1. INTRODUCTION

1.1 Background of the study

Transparency International (2010)defines corruption as either the abuse of public office or misuse of entrusted trust for personal gains. Again, Corruption is the abuse of entrusted power for private gain. Fraud on the other hand is wrongful / criminal deception intended for personal gain. At micro level, it may be perpetrated to meet basic needs due to prevalent poverty while greed may be attributed to the abuse of public office and trust for personal gains. Therefore, Professional Accountants are expected to guaranty precision. It hurts everyone who depends on the integrity of people in authority whenever fraud and corruption take place. The effect of corruption on society in Nigeria are numerous, among them are: Under development of the economy, lack of infrastructure, like good road networks, misuse of natural resources, inadequate power and water supply, mediocrity in professional and leadership positions, defective leadership outputs, fuel scarcity in an oil producing nation, falling standards of education and work output, high unemployment rates, continuous widen gap between the rich and the poor and so many other defective effects too numerous to mention. These defects can be cured with effective strengthening of the institutional framework towards fighting corruption and fraud.

This study seeks to identify whether the role Accountants should play in fighting corruption and fraud in Nigeria was exceptionally performed vis-à-vis the strengths of the established anti-corruption agencies in Nigeria well and to make recommendations on the way forward.

The following questions will be relevant in finding solution to the problem identified above:

1. To what extent has the government strengthened these anti-graft institutions towards fighting corruption and fraud?

2. To what extent can Accountants be one of the pillars fighting corruption and fraud?
3. Have the established anti-graft institutions been able to curb the incidences of corruption and fraud in Nigeria?

For this study to be backed up empirically, the following hypothesis will be tested:

1. Ho: There are no sufficient agencies established to fight corruption and fraud in Nigeria
   Ha: There are sufficient agencies established to fight corruption and fraud in Nigeria

2. Ho: Accountants are one of the pillars fighting corruption and fraud in Nigeria
   Ha: Accountants are not one of the pillars fighting corruption and fraud in Nigeria

3. Ho: The established institutions have not successfully curb corruption in Nigeria.
   Ha: The established institutions have successfully curb corruption in Nigeria.

The study examines the causes, effects of corruption and fraud in Nigeria and solutions/way forward: the role for Accountants will be the focus of this paper.

2. REVIEW OF RELATED LITERATURE

2.1 The Meaning of Corruption

The United Nations Global Programme against Corruption (GPAC) defines it as “abuse of power for private gain” Transparency International, (2010) Sees corruption as either the abuse of public office or misuse of entrusted trust for personal gains. At micro level, it may be perpetrated to meet basic needs due to prevalent poverty while greed may be attributed to the abuse of public office and trust for personal gains.

Dye (2007) as cited in Ahmad et al (2015) described corruption as a behaviour that can occur in both public and private domains. He then defines it to include: “fraud, bribery, political financial crime, conflict of interest, embezzlement, nepotism, and extortion. Examples of government operations particularly vulnerable to corruption are travel claims; collection of taxes and customs revenues; administration of procurement contracts; concessions of subsidies, permits, and licenses; hiring, administration of personnel, and payroll systems; privatization processes; petty cash abuse; and e-commerce and Internet credit card transactions”

Machiavelli as cited in Heidenheimer, (1993) said that “Corruption can be defined as a process by which the virtue of the citizen is undermined and eventually destroyed” and argued "that man had been corrupted by social and political life. It is not the corruption of man which destroyed the political system but the political system which corrupts and destroys man."

Even though some of these definitions of corruption have been around for over decades, the recent development in Nigeria where discoveries of stolen public funds run into billions of US Dollars and Nigeria Naira, make these definitions very adequate and appropriate. Corruption is probably the main means to accumulate quick wealth in Nigeria. (Dike, 2002) opined that Corruption occurs in many forms, and it has contributed immensely to the poverty and misery of a large segment of the Nigerian population.

2.2 Causes of Corruption

Dye, (2007), posited that causes of corruption vary from country to country but majorly, unstable government and institutional faults, lack of good implementation of government programmes and policies, corrupt judicial systems and anticrime institutions, poor remuneration of workers and weak accountability and transparency structures are apparent causes in the developing worlds. The major causes are summarized in Table 1

<table>
<thead>
<tr>
<th>Causes</th>
<th>Main Actors</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greed</td>
<td>Management employees, political elites,</td>
<td>Wholesale fraud with impunity, tax</td>
</tr>
</tbody>
</table>
Adapted from Kpundeh, 1998 as cited in Ahmed et al

### 2.3 Effect of Corruption in Nigeria

The effect of corruption on society in Nigeria are numerous, among them are: Under development of the economy, lack of infrastructure, like good road networks, misuse of natural resources, inadequate power and water supply, mediocrity in professional and leadership positions, defective leadership outputs, fuel scarcity in an oil producing nation, falling standards of education and work output, high unemployment rates, continuous widen gap between the rich and the poor and so many other defective effects too numerous to mention.

These defects can be cured with effective strengthening of the institutional framework towards fighting corruption and fraud.

### 2.4 Can Nigerian do without Corruption?

Nigeria is passing through the greatest crisis in its brief history as an independent nation. The crisis is that of corruption, its control and possibly its extermination. The crisis as rightly put by the former President, General Olusegun Obasanjo when he said that “Corruption is the greatest bane of our society today”. He went further to say “corruption cannot be eradicated overnight it is imperative that the foundations of moral and ethical society have to be laid.” Professor Chinua Achebe in his book titled “the Trouble with Nigeria” said

“His frank and honest opinion is that anybody who says that corruption in Nigeria has not become alarming is either a fool, a crook or else does not live in this country”

In like manner, the immediate past Prime Minister of Britain rated Nigeria as “fantastically corrupt”

Recently, the President, Muhammadu Buhari, during his visit to the United State of America told the world that Nigeria lost $150 billion to corruption. Also reported at different fora were the monies missing in the Nigerian National Petroleum Corporation, (NNPC), The Niger Delta Development Company, (NDDC), Nigerian Custom Service and other revenue agencies as well as billions of dollars allegedly pocketed by unnamed ministers were released by government.

Chriatain Aid, 2008; Otusanya, 2011 and Ahmad et al (2015) observed that Nigeria, as an economy was reported to have lost an estimated sum of £205 million (N105.4 billion) in tax revenues between 2005 and 2007 to the United Kingdom, the European Union and Ireland, as a result of corruption in the form of trade mispricing.

In the sixties and seventies, the legacies of honesty, sincerity, integrity and commitment left behind by colonial masters were with us but with “oil boom” in the eighties, the “professional corrupt language” such as “Nigerian factor” “Kick back” “30%” etc was developed. They were imbibed in us; they were in our blood, they are growing in us and destroying the growth and the development of our economy.

The pervasion of corruption in Nigeria has attracted criticisms from various quarters and has been widely reported, for instance Transparency International (T I) recently has this to say about Nigeria:

<table>
<thead>
<tr>
<th>Politicians, businessmen, financial analysts and professionals.</th>
<th>Evasion scheme orchestration, creation of ghost workers, money laundering, favoritism and discrimination etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Need</strong></td>
<td><strong>Small size embezzlement and misappropriation, bribery and kickbacks, personal tax evasion.</strong></td>
</tr>
<tr>
<td>Impoverished employees, petty cash officials and cashiers, opportunistic Commoners.</td>
<td></td>
</tr>
</tbody>
</table>
“Remarkable is also the position of Nigeria, again the worst performing country in the CPI (Corruption Perception Index)....”

In 1979, the Global Corruption Perceptions Index (GCPI) carried out by Transparency International shows that Nigeria occupies 130th position out of the 180 countries surveyed. In 2014 Corruption Perception index ranked Nigeria as 136th position out of the 175 countries surveyed.

The practice of corruption in Nigeria is made worse for the development of the economy because of the application of the proceed, for instance, Barons of American’s Gilded Age amassed great fortunes through graft and bribery but the railroads they built still operate today and the gains that were so ill gotten remain in American Banks. They were invested in American enterprises. Here, in Nigeria, the contracts were either not executed at all or done so shabbily to the extent that what was built yesterday is likely to fall apart tomorrow. And monies that were embezzled were either deposited in foreign banks or stuffed in suitcases or mattresses against time they could be spirited off to overseas hiding places. Carrington (2000) said that no Chartered Accountant can accurately state the total amount of Nigerian looted funds in foreign banks. Recently Nigerian Plane stuffed with millions of Naira/Dollars was seized in South Africa. It is a different story to common man.

2.5 The Agencies Established to Fight Corruption and Fraud in Nigeria

Nigerian Government has made various efforts since independence to fight corruption by legislations and by the establishment of several anti-corruption institutions in the Country. It is necessary to list some of the efforts made by the government to combat corruption in Nigeria in terms of legislations and establishment of institutional frameworks:

2.5.1 Legislations

The Corrupt Practice Decree” of 1975 promulgated by the regime of Muritala/Obasanjo;
- War against Indiscipline by Buhari/Idiagbon regime;
- Code of Conduct Bureau of 1990;
- Advance free fraud& Other Related Offences Decree of 1995 by the Abacha regime which was later re-enacted as the Advance Free Fraud and Other Related Offences Act, 2006 by Chief Olusegun Obasanjo administration;
- Corrupt Practices and Other Related offences Act ,2003 No.6 (ICPC) ;
- Economic and Financial Crimes Commission (Establishment) etc. Act 2004 (EFCC); and

2.5.2 Anti- Corruption Agencies

- The Independent Corrupt Practices and Other Related offences Commission (ICPC);
- The Nigerian Extractive Industrial Transparency Initiative (NEITI);
- The Technical Unit on Governance and Ant-Corruption Reforms (TUGAR);
- Economic and Financial Crimes Commission (EFCC);
- Budget monitoring and Price intelligence unit (BMPIU) which latter transformed into Bureau for public Procurement; and
- The Nigerian Police.

2.5.3 Current Ways of Fighting Corruption

Ahmad et al (2015) posited that Nigeria adopted both post mortem and proactive measures in her fight against corruption. Post mortem exercises take the form of constituting
investigative panels upon suspicion and/or public outcry that corruption has been perpetrated. This hardly yields any meaningful results as the consequences of corruption are usually irreversible. The establishments of anti-graft agencies to serve as watchdogs against corrupt practices are considered proactive such as the anti-corruption agencies adopted and sustained since the dawn of the fourth republic. While the establishment of these institutions has been assiduously assailed and discredited by a number of critics, it has also been applauded by some. They are assailed of being used as political whips against opposition when they uphold fierce prosecution of offenders while also being accused of laxities when they are too cautious about sensitive issues. Mallam Shekarau, during the 2011 Presidential debate outspokenly considered the establishment of EFCC a multiplication of agencies and tagged it as a ‘glorified police station’. He felt giving better funding to the Nigerian police would have produced better results. They were applauded for the work done to-date, for instance, in 2013, EFCC secured 117 conviction cases and in 2014, they secured 126 convictions in 2016 they secured over 170 convictions and still counting.

2.6 SARBANES-OXLEY ACT

The Sarbanes-Oxley Act (SOx) 2002, the Public Accounting Reform and Investor Protection Act, was passed and became law in August 2002 in the US following the series of accounting and governance scandals involving American public corporations, the most widely published being that of Enron and Worldcom corporations which were audited by Arthur Andersen. It took its short name, Sarbanes-Oxley Act (SOx), from the names of the two principal congressional sponsors. The intention was to regulate corporations that are registered under the Securities and Exchange Commission (SEC). The Public Corporations Accounts Oversight Board (PCAOB), was established to ensure adherence to the provisions of the SOx.

The major provisions of that Act relating to accounting and Audit of these corporations are;
(a) The establishment of a proper internal control system;
(b) Management taking responsibility for the truth and fairness of the financial statements;
(c) At least one member of the audit committee, being a financial expert; and
(d) Preserving audit working papers for at least seven years.

Other minor provisions of the Act include the requirement for these corporations to establish what is called “whistle blower” programmes. These were to report fraudulent accounting and audit practices anonymously.

In the US, apart from the fact that the Statement of Auditing Standards (SAS) 99 requires external auditors to actively perform procedures to detect and correct financial statement fraud, the PCAOB has now issued a new set of rules. Auditing Standards 5 (AS5) specifically directs external auditors to be conscious of the possibility of fraud in the course of their work.

Right from the planning stage through the actual performance of the assignment, the auditor is required to perform entity level fraud risk control assessment. This will include an evaluation whether the enterprise’s controls are sufficient to address the identified risks of material mis-statements due to fraud as well as controls intended to address the risks of management override of the controls. Specifically, the evaluation should address the following controls:
(i) Controls over significant, unusual transactions and particularly those that result in late or unusual journal entries;
(ii) Controls over journal entries and adjustments made in the period-end financial reporting process;
(iii) Controls over related party transactions;
(iv) Controls relating to management’s significant estimates; and
Controls that mitigate incentives for, and pressures on management to falsify or inappropriately manage financial results.

The Nigerian Standards on Auditing (NSA) 5 urges the auditor to obtain reasonable assurance that the financial statements taken as a whole are free from material mis-statements, whether caused by fraud or error. The statement recognises that it may not be possible for the auditor to obtain absolute assurance that material mis-statements in the financial statements will be detected because of the inherent limitation of internal control and because much of the evidence available to the auditor is persuasive rather than conclusive. It therefore directs the auditor to:

(i) maintain an attitude of professional skepticism throughout the audit;
(ii) Consider the potential for management override of controls; and
(iii) Recognize the fact that audit procedures designed to detect errors may not be effective in the context of an identified risk of material misstatement due to fraud.

Uthman et al. (2015) citing Otusanya & Lauwo (2010) have this to say: Although it is traditional for accountants to acclaim public interest in the conduct of their job, they have however been implicated in Nigeria for “various acts of professional misconduct and in falsification and deliberate financial engineering in Nigeria”

2.7 THE ROLE FOR ACCOUNTANTS

In relation to the provisions of the Sarbanes Oxley Act, the role for Accountants cannot be over emphasized. The role of Accountant in any jurisdiction as managers of corporate resources and custodian of financial information upon which depend all rational economic decisions.

Traditionally, Professional Accountants were responsible to:

- keep records which will enable property owners to keep track of their wealth
- Provide financial information that will aid economic decision to invest or to divest.
- Provide necessary checks and balances and for this he must develop internal control measures designed to prevent fraud, misappropriation, thereby safeguarding individual and corporate funds,
- Accountants are statutorily required to attest to the truth and fairness of the records of stewardship of the Board of Directors.
- Accountants often assist clients to plan, compute tax liabilities and also ensure that these obligations are met,
- Accountants also perform the role of professional leadership. By their training, they are leaders who can be looked up to, whose personal judgment is trusted, and who can inspire and warm himself up to the hearts of those he leads, gaining their trust and confidence and explaining what is needed in a language which can be understood.

With expanded responsibilities Accountants also have important roles to play in the crusade against corruption.

Fraud Detection: According to (Gray & Moussalli, 2006) conventionally, checking the conformity of financial statements with applicable financial reporting framework is the backdrop against which the periodic audit operates. Therefore, fraud detection has rather been perceived as a by-product and not one of the primary responsibilities of the audit process.

In the expanded responsibility, According to (O’Leary, 1990) “The accounting profession has undertaken greater responsibilities in the performance of its services” since the evolution of modern businesses which are now premised on agency principles. (Jamal, 2008) assert that the burden of responsibilities is expanded by the expectation of fraud detection as each wave of fraud is often accompanied with the cries of “where are the auditors?”

High Compliance with Professional Ethics: The International Federation of Accountants (IFAC) considers the promotion and enforcement of high ethical conduct and
technical performance among its members as critical success factors in this anti-corruption crusade. Therefore, the starting point of the role of Accountants is to ensure that, in the performance of their responsibilities, they should adhere to the Institute Codes of Ethics. These include, Principles of Integrity, Principles of Independence and Objectivity, Principles of High Technical Standard of Performance and confidentiality.

To What extent have the Accountants complied with the Application of Ethical Standards?

The widespread of corruption in the business environment seems to be the order of the day in almost all the societies. In U.K. for example, corporate scandals have involved such companies as independent Insurance and BCCI, the collapse of Enron Corporation, WorldCom, Global Crossing, and Arthur Anderson to mention but few. In Nigeria, business community is also plagued with ethical problems. Cases of unethical business behavior and corporate scandals involving such large companies such as African Petroleum Plc, Cadbury Nigeria Plc, and Lever Brothers Plc. have been reported. The collapse of many banks and other financial institutions has also been linked with ethical violations. It was alleged that management of the companies were found to engage in fraudulent activities and aided by audit firms, they were able to cover up these activities through fraudulent reporting, thereby misleading the investing public. Recently, the Board of Directors of Skye Bank Plc. Was changed by Central Bank of Nigeria as a result of fraudulent activities perpetrated by them.

3. METHODOLOGY

Survey research design was adopted. 225 people were randomly selected from the population of Chartered Accountants, Social Commentators, Members of Academic Staff and Legal practitioners totaling 280 in Jos and environs. A purposely designed questionnaire was administered on them. 180 copies were completed, returned and analyzed. Data collection was tabulated statistically and employed in the testing of formulated hypothesis. Statistical technique adopted in the analysis is the chi-square ($\chi^2$) method. Because chi-square can be used to determine whether a set of theoretical or expected frequencies fits a corresponding set of observed frequencies of a sample. Based on this, the null hypothesis will be either accepted or rejected. The use of table and percentages of proportions is to show the trend of responses relating to the same questions constrained in the research questionnaire.

The chi-square test is used when it is wished to compare an actual observed distribution with a hypothesis or expected distribution. The simple percentages will be used mainly for comparison while the chi-square will be used to test the hypotheses. This is because the tools of statistical analysis are used when the hypotheses are qualitative. For the expected frequency, the formula:

$$Fe = \frac{R \times C}{N}$$

When:  
C=column total.  
N=Grand total.  
R=Row total

Once this has been determined, it is subtracted from the observed frequency and the result squared and divided by the expected frequency ($Fe$) to give the chi-square value.

$$\chi^2 = \sum \frac{(fo - fE)^2}{fE}$$
Where: $x^2$ = calculated chi-square.
FO= Observed frequency
Fe=expected frequency
$\Sigma$=Summation
Degree of freedom is $(r-1)\times(c-1)$
Level of significance is at 5%.
Pie charts will also be used to depict the results.

4. DATA ANALYSIS AND INTERPRETATION

This research used an empirical survey to investigate people’s perception on fighting corruption and fraud and the role for Accountants. Questionnaires were administered to respondents in order to gather data and their views are shown in the tables below. The responses “Strongly agree” and “Agree” have five and four points respectively and are categorized as high. “Neutral” has a score of three and is categorized as medium. The responses “Disagree” and “Strongly Disagree” have two and one points respectively and are categorized as low. The high category means that respondents strongly agree with views, while low category means that the respondents strongly disagree with the views. The questionnaire was analysed using means and standard deviations. The analysis of the means was interpreted as follows: 4.45 and above (Strongly agree), 3.45 – 4.44 (Agree), 2.45 – 3.44 (Neutral), 1.45 – 2.44 (Disagree), and Below1.45 (Strongly Disagree).

4.1 To what extent has the government strengthened these institutions towards fighting corruption and fraud?

Table 1: Mean and Standard deviations of the respondents view on research question (1- 3)

<table>
<thead>
<tr>
<th>S/N</th>
<th>VIEWS</th>
<th>$\bar{X}$</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>There are sufficient agencies established to reduce corruption in Nigeria</td>
<td>4.11</td>
<td>1.03</td>
</tr>
<tr>
<td>2</td>
<td>There are sufficient legislations in Nigeria that can reduce corruption.</td>
<td>3.94</td>
<td>1.20</td>
</tr>
<tr>
<td>3</td>
<td>The agencies are sufficiently strengthened by the government</td>
<td>3.42</td>
<td>1.31</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2016

Table1: There are sufficient anti-corruption agencies established to fight corruption and fraud in Nigeria
The anti-corruption agencies are sufficiently strengthened by the Nigerian Government

There sufficient laws that can fight corruption and fraud in Nigeria
Table 1 above shows the distribution of respondents according to research questions which focused on the extent that the government strengthened these anti-graft institutions towards fighting corruption. The table shows that the respondents agreed on the views that there are sufficient agencies established to reduce corruption in Nigeria, there are sufficient legislations in Nigeria that can reduce corruption. In addition, respondents were neutral about the statement that the agencies are sufficiently strengthened by the government with means of 4.11, 3.94 and 3.42 and corresponding standard deviation of 1.03, 1.20 and 1.31 respectively.

4.2 **To what extent can Accountants be one of the pillars that can reduce corruption?**

<table>
<thead>
<tr>
<th>S/N</th>
<th>VIEWS</th>
<th>$\bar{X}$</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Accountants are one of the strong pillars that can fight corruption and fraud in Nigeria</td>
<td>3.85</td>
<td>1.34</td>
</tr>
<tr>
<td>5</td>
<td>Accountants perform excellently well in fighting corruption and fraud in Nigeria</td>
<td>3.99</td>
<td>1.06</td>
</tr>
<tr>
<td>6</td>
<td>The major role of Accountants is to detect and report fraud and corrupt practices.</td>
<td>4.05</td>
<td>0.61</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2016
Accountants are one of the strong pillars that can fight corruption and fraud in Nigeria

Accountants perform excellently well in fighting corruption and fraud in Nigeria
The major role of Accountants is to detect and report fraud and corrupt practices

Table 2 above shows the distribution of respondents according to research question which focuses on the extent to which Accountants can be one of the pillars that can reduce corruption. The Table shows that the respondents agreed on the views that accountants are one of the strong pillars that can reduce corruption in Nigeria. Besides, respondents were of the view that it is the role of Accountants is to detect and report fraud and corrupt practices with means of 3.85, 3.99, 3.24 and 4.05 and corresponding standard deviation of 1.34, 1.06, 1.29 and 0.61 respectively.
4.3 To what extent is the effect of government effort in fighting corruption and fraud in Nigeria?

Table 3: Mean and Standard deviations of the respondents view on research question (8 - 12)

<table>
<thead>
<tr>
<th>S/N</th>
<th>VIEWS</th>
<th>( \bar{X} )</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>The anti-graft agencies have been able to reduce corruption</td>
<td>3.76</td>
<td>1.12</td>
</tr>
<tr>
<td>9</td>
<td>The established anti-graft institutions have successfully curb corruption and fraud in Nigeria.</td>
<td>3.37</td>
<td>1.14</td>
</tr>
<tr>
<td>10</td>
<td>Some of the anti-graft institutions do abandoned their objective and operate to satisfy the government in power.</td>
<td>4.27</td>
<td>0.56</td>
</tr>
<tr>
<td>11</td>
<td>The anti-graft institutions need to be reviewed structurally and operationally</td>
<td>4.56</td>
<td>0.56</td>
</tr>
<tr>
<td>12</td>
<td>The Government needs to strengthen all the anti-graft agencies.</td>
<td>4.53</td>
<td>0.53</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2016

The established anti-corruption agencies have been able to fight corruption in Nigeria
The established anti-corruption institutions have successfully fought corruption in Nigeria.

Some of the established anti-corruption institutions do abandon their objective and operate to satisfy the wishes of the Government in Power.
The established anti-corruption institutions need to be revamped structurally and operationally

The Government needs to strengthen all the anti-corruption agencies

Table 3 above shows the distribution of respondents according to research question which focuses on to what extent has the government strengthening these institutions towards fighting corruption and fraud in Nigeria, the table shows that the respondents agreed on the views that the agencies have been able to fight corruption, they were neutral that the established anti-corruption institutions have successfully fought corruption in Nigeria, respondents were of the opinion that some of the institution do abandoned their objective and
operate to satisfy the wishes of the government in power. Moreover, respondents strongly agreed that the anti-corruption institutions need to be revamped structurally and operationally. Finally, respondents strongly agreed that the government needs to strengthen all the agencies with means of 3.76, 3.37, 4.27, 4.56 and 4.53 and corresponding standard deviation of 1.12, 1.14, 0.56, 0.56 and 0.53 respectively.

4.4 TEST OF HYPOTHESIS USING CHI-SQUARE
Re-statement of hypothesis 2:
Ho: Accountants are one of the pillars fighting corruption and fraud in Nigeria
Ha: Accountants are not one of the pillars fighting corruption and fraud in Nigeria

**Observed Frequencies**

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agreed</th>
<th>Agreed</th>
<th>Neutral</th>
<th>Disagreed</th>
<th>Strongly Disagreed</th>
<th>TOTAL</th>
</tr>
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**CONTINGENCY TABLE**

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Chi-square Tabulated @ 5% level of significance and degree of freedom (4-1)*(5-1) =12  
χ² Tabulated is 21.0261  
Since the calculated value of the χ² =18.88, is less than the tabulated value of χ² =21.0261 meaning that we have no sufficient evidence to reject the null hypothesis. In other words, the result revealed that, though Accountants are supposed to be one of the pillars fighting corruption and fraud in Nigeria, they have not been performing as expected.

5. Conclusion
5.1 Research Findings  
Based on the findings from this study, respondents were of the view that there are sufficient agencies established to reduce corruption in Nigeria. Accountants are one of the strong pillars that can reduce corruption in Nigeria, they have not been performing exceptionally well in fighting the menace of corruption in Nigeria. Though the primary roles of accountants are not to detect fraud but they are required to perform their work with due care and efficiency to detect and report any fraud and corrupt practices. Also, it was revealed that the agencies have been able to fight corruption; respondents were of the opinion that some of the institutions do abandoned their object and work to satisfy the government in power. Similarly, the institutions need to be revamped structurally and operationally. Finally, it was revealed that there is crisis in the institutional and policy management, hence, the governments, where possible, create new agencies backed by law and make them autonomous.

5.2 THE WAY FORWARD.

The challenge of building a democratic and economically viable corruption free state is a statutory one, amply reflected in our constitution, thus, Section 15(5) of the 1999 constitution provide that “The state shall abolish all corruption practices and abuse of power”. The question is has the state been able to abolish ALL corrupt practices? Abolish all abuse of power? Assuming we turn it to a researchable question: Where do we have the most corrupt practices in Nigeria? Where do we have the most abuse of power in Nigeria? You may wish to carry out the research at home.

It is strongly considered that the way forward is to consider the following for implementation:
1. The battle of corruption should not be left for the government alone. All hands must be on deck. Accountants should improve upon their technical expertise to be able to detect fraud that a reasonable Accountant is expected to discover. Accountant under
1. No circumstance should account be a party or play ignorance to any practice of corruption.

2. The professional bodies and their regulatory bodies should include in their programme that all Accountant should be trained as forensic expert because it is believed that forensic Accountants possess skills exceeding those of traditional Accountants.

3. It should be made mandatory that all audit engagement teams should include a certificated forensic accounting expert. This corroborates the suggestion of Christen et al. (2005)

4. Nigerian governments should strongly strengthen the Anti-financial crimes agencies given that the influence of highly placed offenders, the dignity, societal bondage and shame inherent in financial crimes may affect the potency of anti-financial crimes measures put in place.

5. The present huge expectation gap between the Professional Accountant/Practicing Auditors and the public should be bridged through awareness, ensure maintenance of integrity and independence. Presently accounting profession is sometimes being discredited for culpability in lending acumen to the perpetration of fraud through its various costs saving schemes.

6. It is noted that strong attention is placed on the production of high qualitative Chartered Accountants in Nigeria. It is recommended that similar high attention should be placed on the regulation of the practice of accountancy and audit in Nigeria so as to achieve the campaign against fraud and corruption by the Accountants.

7. The relevant professional/regulatory bodies should make it a policy that where it has been established that a corporate organization with clean audit report collapsed as a result of fraud and collusion with the knowledge of the auditor, such auditor should be invited for explanation. This will improve the due care and integrity of the institute in future.

8. Comprehensive anticorruption legislation implemented by an autonomous agency endowed with strong legal powers
   i. Identification and targeting of government functions that is most susceptible to corruption and a review of procedures to minimize the scope for abuse
   ii. Maintenance of public salaries that are adequate and not too far below private sector levels
   iii. Adoption of additional legal deterrents against corruption, such as the nullification of contracts, licenses, or permits obtained corruptly. Such a measure would force overseas export guarantee agencies to closely monitor the international transactions they underwrite, and it would give the public an incentive to avoid corrupt behavior and report demands for bribes.
   iv. The basic Institutions of good governance need to be strengthened. At the head of this list is the judiciary, which is itself, the guardian of laws and integrity. But if the judiciary itself is corrupt, the problem is compounded and the public at large is without rule of law.
   v. The capacity and integrity of enforcement need to be enhanced. The best law has no value if it is not enforced. The best Judges and Magistrates are wasted if cases are never brought to them. Good investigations are wasted effort if the Judge or Magistrate is corrupt.
   vi. Government needs to put in place a solid set of preventive tools. Codes of Conduct and strong independent oversight bodies can help ensure that the acceptable standards of behavior are respected in both the private and public sector. Political leaders in all branches of government, legislative and judiciary can be required to have transparency in their own financial dealings through asset disclosure for themselves and their family members.
The public needs to be educated on the advantages of good governance and participate in promoting it. The public itself bears a large share of responsibility for insisting on honesty and integrity in government and business. The public needs to learn: (a) not to let anybody buy their vote; (b) not to receive or pay bribes; (c) to report incidents of corruption to the authorities; and (d) to teach their children the right values; for example, that integrity is good and corruption is bad.

It is safe to conclude that corruption has engulfed all aspect of our society. It is equally true that the government has taken various steps in terms of legislation and the establishment of various agencies to fight corruption in Nigeria. It is noted that government has not adequately strengthened the institutions, hence the inability of the agencies to fight corruption drastically.
Reference


Christensen, J.B, et all (2005) Sarbanes-Oxley: “will you need a forensic accountant?” Journal of Corporate Accounting and Finance vol.16 (3)69-75


THE EFFECTS OF BOKO HARAM INSURGENCY ATTACKS ON EDUCATIONAL INSTITUTIONS: A STUDY OF ADAMAWA STATE UNIVERSITY MUBI, NIGERIA

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Abstract
The study examined the effects of Boko Haram insurgency in Adamawa State University, Mubi (ADSU). The university was invaded in 2014 and closed for one academic session. Boko Haram insurgency displaced staff and students of ADSU; manpower and infrastructure were affected by the insurgency in the university. Furthermore, Anomie theory was used to explain the causes of Boko Haram insurgency. The study population comprised of the staff and students of the University. Both quantitative and qualitative techniques were used to analyze the data collected for the study. Questionnaire was used to collect quantitative data; while in-depth interview (IDI) was used to collect qualitative data. A total of 250 respondents were used as the study population and 3 In-depth interviews were conducted for the study. The analysis for the study was based on 234 returned questionnaire. The findings on the displacement of staff and students in ADSU revealed that Boko Haram insurgency has affected manpower and infrastructure in the university. The study recommended that government should combat Boko Haram insurgency, renovate damages done by the insurgents and provide basic amenities such as: accommodation, healthcare facilities, water, electricity and internet services. This can reduce the level of suffering in the university.

Key words: Academic Session, Boko Haram, Education, Infrastructure, Manpower, Displaced Persons

Introduction
Boko Haram insurgency is perceived, above all as a nuisance because it made life more difficult (Musa, 2015). Boko Haram insurgency fits quite well the terrorist model of insurgents who aim to create panic in order to destabilize the state. The violent activities of the insurgents have made Nigeria a country of serious security concern for the international community and a subject of research interest for scholars focusing on insurgency and terrorism. Since 2009 the group’s tactics have evolved from poorly planned open confrontations with state security agents to increasing use of improvised explosive devices, targeted assassination, ambushes, shootings, and suicide bombing (Onuoha, 2014). Institutions of learning were also target of Boko Haram in Nigeria, Niger, Chad and Cameroon.

Nigeria is ranked 7th in 2013 on the list of nations where insurgency and terrorism is being perpetrated around the world (Yoroms, 2013). North-East Geo-Political Zone of Nigeria is suffering from insurgency since 2009. The Insurgents produce fear, tension, anxiety, stress and disorderliness. People feel threatened as their lives and property are not safe. Their human rights and other interest are also not protected (Eze, 2012). It is a challenge to societies as it causes instability and confusion by disrupting peace and all attempts of orderliness (Odu, 2012). Insurgency is a danger facing humanity today in Nigeria. Insurgency
has come to represent the only option for some individuals or groups to vent their anger or seek recognition. In relation to the activities of the group, education is under attacks as incidence of violence against Universities and Colleges are on the rise in the North Eastern Nigeria, this declined school attendance among youths (Patrick and Felix, 2013). Most insurgent groups attack educational institution as part of their target. For example, in 2014 Al-Shabab insurgents attacked Garissa University College in North East Kenya and killed 147 students injured and displaced many (Campbell, 2005). *Boko Haram* is a threat against students, academics and educational facilities which create barrier to accessing quality education in the affected states. Education in Adamawa, Borno and Yobe States were under attack by *Boko Haram* insurgents (Babatunde, *et al*, 2014). Since 2009 *Boko Haram* has targeted educational institutions killing hundreds of students and staff. *Boko Haram* has bedeviled the educational sector by attacking universities, Polytechnics, Colleges, Secondary and Primary schools (Umar, 2013). *Boko Haram* insurgents viewed western education as evil and sinful, as such educational institutions become the target. Many students and staff were killed and injured in Adamawa, Borno and Yobe States. Structures and properties were destroyed and thousands of staff and students were displaced by *Boko Haram* insurgents (Ibrahim, 2015).

*Boko Haram* was responsible for a series of threats and bombing of universities in Nigeria. In 2011 about fifteen higher institutions of learning received message from *Boko Haram*, warning them that their campuses were on the target list of bombing (Tukur, 2014). Senior academics were leaving universities and colleges in the North East due to fear of *Boko Haram*. This made the universities and colleges to face challenges of shortage of manpower. Structures such as lecture theaters, laboratories were destroyed and vehicles were taken away by the insurgents (Franklin, 2014). According to Aminu (2014), applicants to North East universities and colleges declined due to *Boko Haram* threat. Academic activities were affected due to long vacation by the students and the staff due to insurgency. This made many students to abandon their studies and moved to other educational institutions in peaceful areas. According to UNICEF (2015) over 200 educational institutions were closed in North East due to *Boko Haram* threat in the region.

Thousands of students have been forced out of schools across communities in the affected States. Many teachers have been forced to flee for their safety to other States. In Adamawa North Senatorial District all secondary schools and institutions of higher learning were forced to close (Ibrahim, 2015 and Ugwumba *et al*, 2014). In North Eastern Borno 85 schools were closed affecting 120,000 students after *Boko Haram* attack in an area that has the country’s worst literacy rate. *Boko Haram* has become a threat to most parents, teachers and students. There are series of cases of bombing and burning of schools. This affects school attendance among people of North East. About 800,000 children in the North East where forced to leave schools and flee their homes were they become displaced (UNICEF, 2014).

According to the Amnesty International (2014), students in the affected States were displaced, abducted, injured and killed. In 2014, about 276 school girls were abducted from Chibok Secondary School. According to UNESCO (2014), Nigeria has the world’s highest number of out of school children due to *Boko Haram* insurgency. In Borno and Yobe States some schools were closed for more than two years. More than 600 Nigerian teachers were killed and over 300 students were abducted from a school in Damasak by *Boko Haram* insurgents. The insurgents target public, private schools and institutions of higher learning. This is a disaster not only to the affected States but Nigeria at large. Against this background, the study is set to examine the implications of *Boko Haram* insurgency on the Adamawa State University, Mubi.
Aim and Objectives of the Study
The aim of the study is to examined the Effects of Boko Haram insurgency attacks in Adamawa State University, Mubi (ADSU). To achieve this aim, the following specific objectives were formulated:

1. To identify problems encountered by staff and students after Boko Haram displacement.
2. To examine the effects of Boko Haram insurgency attacks on manpower and infrastructure in ADSU.

Literature Review and Theoretical Explanation of Insurgency
Boko Haram Insurgency and Displacement of Staff and Students
Boko Haram has bedeviled education by attacking schools displaced staff and students. Students and staff of educational institutions in Adamawa, Borno and Yobe States are facing displacement due to increase attack by Boko Haram insurgents. Many students and staff were displaced from their institutions from Boko Haram attacks; many were reported missing in the affected states where Boko Haram operates (Isaac, 2015). Adamawa State University, Mubi is one of the affected institutions that was attacked and invaded by Boko Haram insurgents in 2014. Staff and students trekked hundreds of kilometers for safety after Boko Haram captured Mubi. Students spent days in the bush without food climbing mountains and running away from the insurgents (Ibrahim, 2015).

Students and staff of educational institutions in Adamawa, Borno and Yobe States become part of the Internally Displaced Persons (IDPs). One of the dire consequences of Boko Haram insurgency in the North East is the displacement of millions of people from homes and campuses. Many institutions of learning have been taken over by the insurgents who maltreat people. Students who become displaced are vulnerable, because they lack basic necessities of life. Students and staff who are displaced suffer from the problem of non-availability of food, psychological depression, insecurity, lack of accommodation and healthcare (CITAD, 2014). Displacement of students and staff of higher institutions of learning in North East Nigeria by Boko Haram has crippled research, teaching and learning in many Colleges and Universities.

Effects of Boko Haram Insurgency Attacks on Manpower and Infrastructure
Man power and infrastructure become an integral part of educational institutions. Frequent attack by Boko Haram on staff and infrastructure has done a lot of havoc to manpower and infrastructure in institutions of learning in Adamawa, Borno and Yobe States. The sporadic attacks by Boko Haram on educational institutions led to loss of trained academic and non academic staff that are maimed, killed or displaced affects the institutional manpower. In North Eastern region of Nigeria especially in Adamawa, Borno and Yobe States staff of educational institutions were forced to leave their community because of increase threat of Boko Haram (Ugwumba, 2014). In most institutions of learning in Adamawa, Borno and Yobe States many students have left, staff relocated and academic exchange even with other Nigerian universities has virtually ceased. The destruction and infrastructural damages by Boko Haram insurgents reduces the availability of access to education of many youths in to universities and colleges in Adamawa, Borno and Yobe States.

Boko Haram insurgency affects manpower in most of the colleges and Universities in North East Nigeria. Boko Haram activities has affected academic staff; staff on visiting and sabbatical desists from teaching and research in most institutions in Borno, Yobe and
Adamawa. Some academic staff had left to other peaceful universities due to Boko Haram threat. Improvised Explosive Devices (IEDs) were used to attacked lecture theatre, laboratories, offices, library and vehicles were taken away by the insurgents. Lecture Theater become a problem for the students to attend lectures, practical become a problem for the students in the faculties of Science and Agriculture due to damages on the laboratories and staff faced shortages of offices due to damages (Ibrahim, 2015). Boko Haram attack on infrastructure has caused havoc and damages which affect teaching, learning and research in most colleges and universities in the North East.

According to Hussein and Sarki (2014), many criminological theories have been put forward to explain criminal behaviors. These theories try to give us, at least, a clue about why certain anti-social, deviance or criminal behavior. Theory of Anomie which is linked to the work of Durkheim (1858) and later developed by Merton (1963), contributed to the understanding of criminal behavior by utilizing Durkheim’s theory of anomie (Lilly et al, 2011). Merton suggests that all social structures have two characteristics, namely goals and means. The goals are those things that are worth striving for. The means are the approved methods for achieving the goals (Nkpa, 1994).

According to Merton (1963), there is relationship between the normative system and the social structures that operate in the society. Society provides means of attaining the societal goals, but members do not have equal opportunities for attaining the goals. Members of the society with less access to means of attaining the societal goals will reject the social values and strive for success by any available means. When the goals are rejected, or the means for obtaining those goals are rejected criminal behavior results (Burke, 2009, Tierney, 2010).

The justification for adopting Merton’s theory to explain Boko Haram insurgency is that, Boko Haram insurgents are categorized under rebellion. They reject both the goals and the means of the society. The insurgents wish to substitute with both alternative goals and means. The insurgents strive for success through illegal or unconstitutional means to achieve their goals which society deemed as crime to any one that reject the means and the goals established by the society. Boko Haram reject the goals and the means because is not commensurate with their ideology, as such they want to substitute the system with new social order as claimed by Boko Haram leader Abubakar Shekau. That is why the insurgents attack educational institutions, attacking the institutions is part of changing the means and the goals of the society which the Boko Haram insurgents viewed as hindrance in achieving their goals. Attacking educational institutions is in line with their ideology of Boko Haram meaning “western education is forbidden”. This is why they launched attack on the institutions.

Methodology

The research was conducted in Adamawa State University, Mubi (ADSU). The university was established in January 2002 by the Adamawa State University Law No.10 of 2001. The University is located in Mubi town, in the Northern Senatorial District of Adamawa State. Adamawa State University, Mubi is the first State Government owned University in the North East Geo-Political Zone.

The study used two sampling techniques from probability sampling. This includes cluster and simple random samplings. The university has three faculties, these includes: Faculties of Agriculture, Science and Social and Management Sciences. From each of the faculty selected as clusters one department was selected to draw respondents. Students from level 200 - 400 were drawn as respondents, because they were most affected by the act of Boko Haram in the university. Simple Random Sampling (SRS) was used after selecting the clusters to draw the respondents from the three (3) departments selected from the three (3) faculties. The selected departments include Crop Science, Chemistry, and Political Science.
For the in-depth interview (IDI), purposive sampling was used to select three participants. A total of two hundred and fifty respondents were selected from the three departments.

A total of two hundred and fifty questionnaires (250) were administered by the researchers and interviews were carried out with the aid of in-depth interview guide. The informants comprised of one (1) management staff, one (1) academic staff, and one (1) non academic staff. A total of three (3) IDI was conducted. This gave a total of two hundred and fifty three (253) respondents for the study.

The qualitative data generated through questionnaire was analyzed using Statistical Package for Social Sciences (SPSS version 22). The information derived therein were analyzed using descriptive statistical analysis such as simple tables of frequencies and percentages for easy understanding. The qualitative data generated through in depth interview (IDI) were transcribed and re-written from field notes and tapes and later transcribed to complement the quantitative data.

Results and Discussions

This section discussed problems faced by students and staff after Boko Haram displacement from Adamawa State University, Mubi.

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<th>Displacement</th>
<th>Frequency</th>
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<td>95.7</td>
</tr>
<tr>
<td>No</td>
<td>10</td>
<td>4.3</td>
</tr>
<tr>
<td>Total</td>
<td>234</td>
<td>100.0</td>
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</table>

Table 1.0 above revealed that 95.7% of the respondents were displaced and faced problem after Boko Haram attacked the university and 4.3% did not face such problem. This indicates that majority of students of ADSU faced several difficulties as a result of Boko Haram attack on the university which eventually lead to their displacement in 2014.

<table>
<thead>
<tr>
<th>Problems</th>
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<td>Shelter</td>
<td>44</td>
<td>18.8</td>
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<tr>
<td>Transportation</td>
<td>36</td>
<td>15.4</td>
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<tr>
<td>Insecurity</td>
<td>46</td>
<td>19.7</td>
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<td>All of the Above</td>
<td>52</td>
<td>22.2</td>
</tr>
<tr>
<td>Others</td>
<td>27</td>
<td>11.5</td>
</tr>
<tr>
<td>Total</td>
<td>234</td>
<td>100.0</td>
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</tbody>
</table>

Table 2.0 indicates that the problems faced by students and staff after their displacement revealed that 12.4% of the respondents faced problem of food shortage, 18.8% faced problem of shelter, 15.4% faced problem of transportation, 19.7% insecurity, 22.2% faced all the above mentioned problems and 11.5% faced other problems after their displacement such as healthcare. The study shows that majority of the students and staff...
faced different problem after their displacement by the insurgents from the university. In an interview with a member of the university community revealed that:

*When Boko Haram Insurgents attacked Mubi in October 2014, students and staff trekked hundreds of kilometers for safety. Some trekked to Maitha, Hong and Gombi and were assisted to Yola by members of these communities. Many left their property and along the way some were robbed. Some members of the university community were even killed. We faced problem of transportation, food, shelter and water. In fact it was disheartening when I remember that tragedy; it was only God that saved us.* (IDI with member of the university community Mubi, 2016).

**Table 3.0: Prevalence Rate of Boko Haram Displacement**

<table>
<thead>
<tr>
<th>Prevalence</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high</td>
<td>145</td>
<td>62.0</td>
</tr>
<tr>
<td>High</td>
<td>52</td>
<td>22.2</td>
</tr>
<tr>
<td>Low</td>
<td>20</td>
<td>8.5</td>
</tr>
<tr>
<td>Very low</td>
<td>17</td>
<td>7.3</td>
</tr>
<tr>
<td>Total</td>
<td>234</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 3.0 indicates the prevalence rate of displacement revealed that 62.0% of the respondents believed that displacement was very high, 22.2% respondents believed that it was high, 8.5% of the respondents agreed that it was low and 7.3% respondents believed it was very low. The study shows that the displacement by *Boko Haram* in ADSU was very high.

**Table 4.0: Effects of Boko Haram on Manpower**

<table>
<thead>
<tr>
<th>Effects</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>203</td>
<td>86.8</td>
</tr>
<tr>
<td>No</td>
<td>31</td>
<td>13.2</td>
</tr>
<tr>
<td>Total</td>
<td>234</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4.0 indicates how *Boko Haram* insurgency affected manpower in ADSU were 86.8% of the respondents agreed that manpower was affected, while 13.2% of the respondents disagreed. This shows that *Boko Haram* insurgency have affected manpower in the university. In an interview with another member of the university community revealed that:

*Boko Haram is a disaster to the university. It affected manpower in ADSU. Many academic staff that are on visit and sabbatical are no longer coming to ADSU. In fact I knew staff that resigned because of Boko Haram threat and left Mubi. Boko Haram has seriously affected manpower in the university, in fact I even fear if the university can pass the next*
Table 5.0: Effects of *Boko Haram* on the university Infrastructure

<table>
<thead>
<tr>
<th>Infrastructures</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture Theatres</td>
<td>27</td>
<td>11.5</td>
</tr>
<tr>
<td>Offices</td>
<td>37</td>
<td>15.8</td>
</tr>
<tr>
<td>Hostels</td>
<td>24</td>
<td>10.3</td>
</tr>
<tr>
<td>Laboratory</td>
<td>42</td>
<td>17.9</td>
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<tr>
<td>Library</td>
<td>23</td>
<td>9.8</td>
</tr>
<tr>
<td>All of the above</td>
<td>81</td>
<td>34.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>234</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Table 5.0 above revealed that 11.5% of the respondents believed that theaters were affected, 15.8% respondents agreed offices were affected, 10.3% respondents revealed that students hostels were affected, 17.9% respondents believed that laboratories were affected, 9.8% respondents believed that library was affected and 34.6% of the respondents have the notion that all structures in the university were affected. This study shows that structures in the university were affected by *Boko Haram* insurgency. In an interview with a member of the university community revealed that:

> Serious damages were done to structures when *Boko Haram* attacked the university, most especially the senate building, staff quarters, hostels, chapel, lecture theatres, and laboratories. Vehicles were stolen and computers were damaged by the insurgents. After resumption the university set up a committee to assess the level of damages done to the infrastructure. As you can see now some of the structures were rehabilitated for teaching and learning to take place. (IDI with member of the university community Mubi, 2016).

**Conclusion**

The study examined the effects of *Boko Haram* Insurgency attacks in Adamawa State University, Mubi that was captured in 2014 and closed for one academic session. Findings of the study revealed that *Boko Haram* has done havoc to teaching, learning, research, and community service in the university. *Boko Haram* insurgents attack western education because of their ideology that western education is forbidden and this crippled the system in most institutions of learning in North Eastern Nigeria particularly in Adamawa, Borno and Yobe States. Students and staff of educational institutions in the North East were displaced, killed, and injured by *Boko Harm* which affected academic activities, manpower, and infrastructure.

**Recommendations**

The recommendations for this study are proffered based on the major findings on the effects of *Boko Haram* insurgency attacks in Adamawa State University, Mubi. The recommendations are as follows:

- University security should be formally trained on combating any act of insecurity on campus.
The management of the university should provide staff, students and visitors with a unique means of identification apart from ID cards for easy identification with aim of preventing insecurity and threats on campus.

The Federal Government on their part through the TETFUND should provide adequate support to affected institutions to expeditiously rebuild and renovate all structures and facilities destroyed by Boko Haram insurgents.

State Government should fund the university to improve the state of manpower by employing senior academics and junior staff should be encourage for further studies, this can improve the standard of the university.

Government should help in providing basic amenities such as: accommodation, healthcare facilities, water, electricity, internet services and transportation. This can reduce the level of suffering on campus after Boko Haram attack.

Guidance and Counseling Unit of the university should remain active in counseling students who are suffering from trauma and psychological depression after Boko Haram attack.

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FINANCIAL REPORTING QUALITY AND CORPORATE TAXATION; EVIDENCE FROM NIGERIAN OIL AND GAS COMPANIES.

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ABSTRACT
This study examines the impact of financial reporting quality on corporate taxation of the Nigerian listed oil and gas companies. Financial reporting quality is represented by discretionary accrual and corporate taxation is represented by effective tax rate. Data for the study were obtained from an audited annual reports and accounts of the sampled Nigerian Oil and Gas Companies for 10 years covering 2004 – 2013. Multiple regression was used to analyse the data using SPSS version 21. It was discovered that discretionary accrual positively and significantly impacts on effective tax rate implying that Nigerian Oil and Gas Companies manage their earnings significantly to reduce their tax burden which erodes the quality of financial reporting. Thus, the study recommends that Nigerian Oil and Gas Companies should device other means of reducing their tax burden apart from earnings management. In addition, Auditors should be proactive to their responsibilities in order to reduce earnings manipulation and minimize tax evasion which erodes the quality of financial reporting.

KEYWORDS; financial reporting quality, discretionary accrual, effective tax rate, earnings management.

1.0 Introduction
Financial reporting quality is the means of communicating information on the activities of the company to the users of accounting information (Kantudu & Samaila, 2015). The management of companies in Nigeria is responsible for the preparation of annual financial statement of which the auditor is to attest. Thus, financial report is one of the instruments used by stakeholders in assessing the performance of a company there by knowing the actual amount of tax paid. However, through specific methods, the company often manipulates the financial report in the recordings of the company’s book keeping activities which are referred to as earnings management in accounting.

Earnings management is a particular issue, which attracts the attention of academics and other scholars in the field of accounting and finance. This is so, especially in recent years after many accounting scandals in prominent companies among which are Enron in the US and Lernout and Hauspire in Belgium. In Nigeria, there are reported cases of companies involved in accounting scandals related to earnings management, such as Cadbury Nigeria,
Savanna bank, Wema bank, Fin bank, Spring bank and recently Intercontinental bank, bank PHB and Afri bank are few examples of publicly reported cases of misleading financial reports.

Earnings management is recognized as attempts by management to influence or manipulate reported earnings by using specific accounting methods or accelerating expense or revenue transactions or by using other methods designed to influence short-term earnings (Healy & Wahlen, 1999). The term refers to systematic misrepresentation of the true income and assets of corporations or organization (Omoye & Eriki, 2014).

Similarly, financial reports ought to be reliable to enable users to make judgments, predictions and decisions. Earnings management has also been a concern of regulators and practitioners for several years because for, it erodes the quality of financial reporting and misleads users of financial statements by providing them with false information about a firm true operating performance (Chen, Elder & Hseih, 2007).

Taxation is a vital instrument in the economic development of a nation. It provides a steady flow of revenue to the financial development priorities such as strengthening physical infrastructures and other numerous policy areas ranging from good governance and economic development. Tax policy shapes the environment in which trade and investment take place (Uwaigbe & Olusegun, 2013). Corporate taxes are taxes charged against profits earned by businesses during a given period. They are generally applied to companies operating earnings after all allowable expenses (such as cost of goods sold and depreciation) are deducted from revenues. It is a global knowledge in the history of the practice of taxation that taxes are coercive in nature. Therefore, economic units, which are assigned tax liability never wholly, intend to bear the actual tax burden (common wealth association of tax administrators (CATA, 2007).

The oil and gas industry is one of the vital industries in the world, largely because of its strategic role in every economy and the world at large. Oil is the most transported commodity worldwide, more than any other commodity and Nigeria is blessed with abundant natural resources of which petroleum products play a major role in the economy. The petroleum sector generates over 90% of the country’s foreign exchange earnings, and provides employment in various forms to Nigerians (Central Bank of Nigeria, 2010). Inaddition, the tremendous growth in oil earnings has influenced Nigeria’s international relations.

In Nigeria, corporate income tax is one of the major source of revenue generation and an important factor in federal government’s budget (Uwuigbe & Olusegun, 2013). The tax authorities will require knowing the earnings made by a company through the annual financial report and accounts and that reveals the actual amount of tax to be paid. Consequently, stakeholders want to sway tax burden and get high return, as such corporations could use earnings management in order to reduce their tax liability.

Despite the importance of petroleum product and taxation to the growth and development of the Nigerian economy, research in both financial reporting quality and corporate tax in Nigeria are few. Consequently, there is the need to examine the impact of Financial reporting quality using earnings management technique on corporate tax of listed oil & gas companies in Nigeria. This study is carried out to fill this gap for the Nigerian oil and gas companies. This paper therefore, examines the impact of financial reporting quality (in form of discretionary accrual) and corporate taxation (in form of effective tax rate) of listed Nigerian oil and gas companies. To accomplish this, the paper is divided into five sections namely introduction, literature review, methodology, results and discussion, and finally conclusions and recommendations.
2.0 Literature Review

Generally accepted accounting principles (GAAPs) offer some flexibility in preparing the financial statements of companies and give the financial manager some freedom to select among accounting policies and alternatives. Earnings management uses the flexibility in financial reporting to alter the financial results (Abdelghaney, 2005). This section will discuss concepts, empirical studies and theories related to discretionary accruals and corporate tax.

2.1 Accrual Based Earnings Management (AEM)

This is about the discretion of management in the process of selecting accounting methods and in estimating numbers. Accrual management is manipulating accrual with no direct cash flow consequences. Accruals shown on the statement of financial position, and total accruals are calculated by putting together several items in the statement of financial position. The accruals can be an indication of earnings management because the discretion of management is needed for the recognition of some items. Besides, the timing of the items is subject to management discretion for instance, the write-off of assets can be delayed which can be an indication for earnings management (Healy & Wahlen, 1999). Accrual-based measures are commonly employed in the tests of the earnings management supposition.

2.2 Review of Related Empirical Literature

Several studies on the relationship among discretionary accrual and corporate tax were conducted in different part of the world such as, Dhaliwal et al. (2014) that investigate whether income tax is regularly used to achieve earnings target using large and midsize business (LMSB) programmed of the internal revenue service (IRS) in the United States from 1986 to 1994. Using multiple linear regression, evidence from the study shows that reported taxes are used to manage earnings when firms would missed their earnings target, they decrease their annual effective tax rate (ETR). Therefore, firms with higher discretionary accruals are more likely to explore tax expense to manage earnings than those with lower discretionary accruals. Although, some firms use tax expense as a cookie jar reserve to manage earnings when other pre-tax accruals fail to achieve the target.

Similarly, Mulyadi and Anwar (2014) examine corporate governance, earnings management and tax management, using board size and board compensation to proxy for corporate governance and discretionary accrual and effective tax rate to proxy for earnings management and tax management respectively on the sample of Indonesian listed firms using ordinary least square regression. The study finds that, there is significant impact of corporate governance to earnings management and tax management. Board size displays a positive correlation to tax management by using effective tax rate. This study signifys that discretionary accrual influences effective tax rate.

Suwardi (2013) investigate the impacts of the reduction of statutory income tax rate on management behavior in determining earnings. Financial data from (2003-2009) of manufacturing firms listed in the Indonesian stock Exchange (IDX) are collected and analyzed using linear regression to obtain empirical evidence. Guenther model (1994) perfected with Kothari model (2005) are used for testing earnings management based on the prediction error obtained. The results confirm that the managements anticipated reduction in statutory income tax rate as enacted in the Income Tax Act (ITA) 2008. This anticipation is indicated by lowering current accruals in the year 2007 and 2008 (before ITA, 2008) and year 2009 (after ITA 2008). More than 80 percent of the companies of the study reference have negative current accruals calculated from current accruals minus expected current accruals from 2007 to 2009. The Study provides evidence that firms in Indonesia did earnings management through lowering accruals. However, when firms’ characteristics (i.e. size, debt and managerial ownership) are introduced to explain earnings management, the study finds
that none of them individually leads to earnings management. These results suggest that, when tax rate is high firms did earnings management to reduce tax liability.

More so, Flores and Silveira (2013) investigate whether an increase in tax create incentive to earnings management using linear regression on the sample of firms listed in Brazilian insurance companies for the periods of 2007 to 2009. The finding reveals that, there is significant relationship between increase tax rates and the measure of specified accruals, the result further evidenced earnings management behavior in the sector, where higher technical accruals reduces income tax expense.

Based on the above studies, the study deduced that firms manage earnings through lowering accruals in order to reduce their corporate tax.

However, Wang and Chen (2012) examine the relationship between tax avoidance and earnings management using linear regression models with data from 2004-2006 obtained from Chinese listed companies. The findings of the study show that there is a significant correlation between discretionary accrual and tax avoidance, while the long-term business performance weakens the correlation. There exists, positive correlation between discretionary accrual and size. The study concludes that earnings management and tax avoidance are commonly practiced among Chinese listed companies but they do not present a consistency.

Aliani and Zarai (2012) in the American context employ linear regression and submit that, there is no significant relationship between board size and tax aggressiveness (the effort of the company to minimize tax payments using aggressive tax planning activities and tax avoidance). Boussaidi and Hamed (2015) affirm the findings of Aliani and Zarai (2012), using linear regression on a sample of Tunisian listed firms over the period 2006-2012 period. They also find that there is no any significant effect of board size on tax aggressiveness.

Zeng (2011) employ regression in analyzing the effect of institutional environment, inside ownership and effective tax rate of Chinese listed firms from 1998-2005. The study documents and realizes that insider ownership and firm sizes are positively related to effective tax rate and significant, while leverage and profitability are insignificant and negatively related to effective tax rate. He concludes that firm insider shareholding and outside institutional environment both play an important role in influencing firm’s tax reporting behavior.

Moreover, Zeng (2010) examine long-term income tax liability for Chinese public corporations and the factors associated with Chinese firm’s long-term effective tax rate during the period 1998-2007. Using multivariate regression, the study findings are that effective tax rate (ETR) are lower than statutory tax rate. In addition, effective tax rate (ETR) varies significantly across industries and geographic areas. Profitability, size, and ownership structures are negatively and significantly related to effective tax rate, while leverage is positively and significantly related to ETR. The study documents that the low effective tax rate could be governed by government preferential tax policies or management actions of tax planning, avoidance and evasion. agricultural and information technological industries pay low effective tax rate because government want to protect the industries.

Desai and Dharmapala (2009) review recent evidence analyzing the link between earnings management and corporate tax avoidance and how tax shelters enable managers to manipulate reported earnings. The review established that greater book-tax alignment might have mutually beneficial effects for investors and tax authorities. The study emphasizes that tax avoidance demands obfuscator actions that can be bundled with diversionary activities including earnings manipulations to advance the interest of managers rather than shareholders. Conceptualizing corporate tax avoidance within an agency perspective provides a fuller and more accurate depiction of the motivations during the period 2006-2010.

In another development, Noronha et al. (2008) identify the most frequently used earnings management techniques in China and the underlying factors that motivate firms to
engage in earnings management. The study uses primary data coupled with multiple regression test and documents that public companies have stronger incentive to manage earnings while private companies pay more attention to tax expense savings showing that managers view earnings management as reasonable and useful. In addition, firm size and form of ownership negatively influence earnings management incentives and techniques. Usman and Zeghal (2006) establish that incentives to earnings management for French firms are specifically linked to contractual debt cost and effective tax rate, while Canadian firms show specific incentives matched with dynamic capital market and issuing equity are strong motives for earnings management. The researchers employ panel estimation technique on 1,470 French firms and 1,674 Canadian firms during the period 1996-2000.

Lin (2006) finds that firms manage earnings for tax purposes, examining Chinese firms which are about to lose their tax holiday benefits, that is they experience a tax rate increase, for the period 2002-2003. Using simple linear regression the result suggests that, in the year immediately before the tax rate increase, firms report discretionary accruals, on average, 1% higher than those in the years after tax rate increase do. Importantly this result clearly shows that firms manage accrual to avoid paying higher tax.

Similarly, the researcher deduces that firms manage earnings upward when tax rate is high and vice versa in order to reduce tax liability. There exists significant positive relationship between effective tax rate and earnings management as in Holland and Jackson (2004). Inadition, there exist significant relationship between effective tax rate and profitability, firm size, board size and leverage. Although there are, few studies that reveals mixed findings.

### 2.3 Research Methodology

A non survey design is employed in the study, as the study entails the use of annual reports and accounts of the Nigerian oil and gas industry. This study’s population is the listed oil and gas companies in Nigeria. As at 31/12/2013 there were, ten oil and gas companies listed on the Nigerian stock exchange. Therefore, all the ten companies constitute the population of the study.

**Table 3.1 Population of the study**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Company name</th>
<th>Year of incorporation</th>
<th>Year of listing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Japaul Oil &amp; Maritime Services Plc.</td>
<td>1994</td>
<td>2005</td>
</tr>
<tr>
<td>2.</td>
<td>Oando Plc</td>
<td>1969</td>
<td>1992</td>
</tr>
<tr>
<td>5.</td>
<td>Conoil Plc</td>
<td>1960</td>
<td>1989</td>
</tr>
<tr>
<td>7.</td>
<td>Forte Oil Plc</td>
<td>1964</td>
<td>1978</td>
</tr>
<tr>
<td>8.</td>
<td>Mobil Oil Nigeria Plc.</td>
<td>1978</td>
<td>1979</td>
</tr>
<tr>
<td>9.</td>
<td>MRS Oil Nig. Plc.</td>
<td>1969</td>
<td>1978</td>
</tr>
</tbody>
</table>

Source: Generated by the Researcher from NSE fact book 2013.

Table 3.1 above shows the population of the study, consisting of ten listed oil and gas companies, quoted on the Nigerian stock exchange as at December 2013.
For the purpose of this study, seven (7) out of the ten (10) companies presented in Table 3.1 above constitute the sample size. To arrive at the sample size a one way filter was adopted. The criterion is that, all companies must have been consistently listed without delisting from 2004 to 2013. This will enable the researcher to get complete information for the periods of the study that is 2004-2013. With this criterion, three companies are eliminated namely: Japaul oil and maritime services, Beco petroleum products Plc. and Afroil oil Plc. The first two companies are not listed before the period, while the last one is delisted along the period. This reduces the sample to seven companies. As such purposive sampling technique is used. Table 3.2 contain the study sample.

Table 3.2 Sample of the Study

<table>
<thead>
<tr>
<th>S/N</th>
<th>Company name</th>
<th>Year of listing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Oando Plc.</td>
<td>1992</td>
</tr>
<tr>
<td>2</td>
<td>Conoil plc</td>
<td>1989</td>
</tr>
<tr>
<td>3</td>
<td>Eterna oil &amp; gas plc</td>
<td>1997</td>
</tr>
<tr>
<td>4</td>
<td>Forte oil plc</td>
<td>1978</td>
</tr>
<tr>
<td>5</td>
<td>Mobil oil Nig. Plc</td>
<td>1979</td>
</tr>
<tr>
<td>6</td>
<td>MRS oil Nig. Plc</td>
<td>1979</td>
</tr>
<tr>
<td>7</td>
<td>Total Nig. Plc</td>
<td>1978</td>
</tr>
</tbody>
</table>

Source: Generated by the Researcher from Table 3.1.

The sources of data used for the purpose of a particular study will depend on the variables being examined. Secondary source of data is used in this study. The data obtained from the Nigerian Stock Exchange fact book (2012/2013) is the names and year of listing of firms in the Nigerian oil and gas companies. Whereas the necessary data on the variables under study were extracted from the annual reports and accounts of the companies under study for a period of ten years that is the period 2004 to 2013. The study covers a period of ten years consisting seven companies. Thus, panel data technique is the suitable technique adopted in the actualization of the research objectives. Also ordinary least square (OLS) multiple regressions are employed as the analytical tools (Okolie, 2014 and Kurawa & Saheed, 2013). This is coupled with a multicollinearity test to provide absence of multicollinearity, using statistical package of the social sciences (SPSS, version 21).

3.1 Measurement of the Variables

3.1.1 Dependent Variable

Effective Tax Rate (ETR): Consistent with the prior study of Zeng (2012) ETR is defined as total tax paid divided by profit before tax.

\[ ETR = \frac{\text{Total Tax Paid}}{\text{Earnings Before tax}} \]  

3.1.2 Independent Variable

Discretionary Accrual (DA): Discretionary accrual would be used as a proxy to establish the quality of financial reporting. Across sectional regression of the modified Jones model (1991) consistent with prior studies such as Dechow et al. (1995), Guay et al (1996)
and Cahen (1996), would be used to obtain discretionary component of accrual. The choice of Jones model (1991) informed by the argument of Dechow et al. (1995) note that the model is more powerful in detecting earnings management among other existing models. The model is able to decompose accruals into discretionary and non-discretionary when changes in revenue are adjusted for changes in receivables.

\[ TA = DAC + NDA \]  \hfill (II)

Where:

\[ TA = \text{Total accruals}, \quad DAC = \text{Discretionary Accruals} \]

\[ E - CFO \]  \hfill (III)

Where:

\[ E = \text{Earnings}, \quad CFO = \text{Cash Flow From operation} \]

\[ DAC = \frac{\{TA - a (1) + b (\Delta REV) + c (PPE)\}}{A_{i-1}} \]  \hfill (IV)

Where:

\[ A = \text{Total Assets}, \quad \Delta REV = \text{Change in Revenue}, \quad PPE = \text{Property, Plant and equipment} \]

### 3.1.3 Control Variables

The control variables included base on the literature review, such as Zeng (2014), Khawar and Kwable (2014), Zenzem and Ftohi (2013) and Zeng (2011) include:

**Firm Size (SIZ):** This is defined as the natural logarithm of total asset (Wang & Chen, 2012). The larger the firm size the higher the profit given the fact that firms have more resources and hence higher profit, therefore, they are likely to manage earnings through discretionary accruals (Gray & Clarke, 2004)

**Leverage (LEV):** This is defined as total debt divided by total asset (Zeng, 2014). Debt is associated with higher risk and therefore tax deduction of interest expense from debt financing reduces the tax liability.

**Profitability (PROF):** This is defined as earnings before interest and tax divided by total asset. The higher the profitability of a firm, the higher the taxation (Zeng, 2011 and Odia & Ogiedo, 2013).

**Board Size (BS):** This is seen as the total number of board of directors.

**Board Composition (BC):** This is taken as the proportion of outside directors sitting on board to total number of directors (Hassan & Ahmad, 2012).

The regression equation is as below;

\[ ETR_{it} = \beta_0 + \beta_1 DA_{it} + \beta_2 SIZ_{it} + \beta_3 LEV_{it} + \beta_4 PROF_{it} + \beta_5 BS_{it} + \beta_6 BC_{it} + \epsilon_{it} \]  \hfill (I)

Where:

\[ DA = \text{Discretionary Accrual}, \quad SIZ = \text{Firm Size}, \quad LEV = \text{Leverage}, \quad PROF = \text{Profitability}, \quad BS = \text{Board Size}, \quad BC = \text{Board Composition}, \quad i = \text{Period}, \quad \epsilon = \text{Error Term} \]

### 4.0 Results and Discussions

This section presents the regression results on the impact of financial reporting quality on corporate taxation in the listed Nigerian oil and gas companies.

**Table 4.1 Summary of regression analysis**

\[ ETR_{it} = \beta_0 + \beta_1 DA_{it} + \beta_2 SIZ_{it} + \beta_3 LEV_{it} + \beta_4 PROF_{it} + \beta_5 BS_{it} + \beta_6 BC_{it} + \epsilon_{it} \]
Table 4.3 presents the results of the regression equation for effective tax rate. From the side of the independent variable discretionary accrual has a positive and significant relationship with effective tax rate (with p-value of 0.095 at 10% significance level) implying that as the level of discretionary accrual increases effective tax rate reduces. This reveals that discretionary accrual impacts positively on effective tax rate that is the financial reporting quality of the Nigerian oil and gas companies is at a low level. While on the other hand, the control variable leverage is found to be negatively and significantly related to effective tax rate (with p-value of 0.008 at 1% significance level) this signifies that tax deduction of interest expense from debt financing reduces tax liability. Furthermore, profitability is positively and significantly related to effective tax rate (with p-value of 0.013 at 5% significance level) this signifies that highly profitable companies are paying more taxes. Similarly, board size is positive and significantly related to effective tax rate (with p-value 0.006 at 1% significance level) this implies that big firms are paying more tax. Finally, board composition display a negative and significant relationship with effective tax rate (with p-value of 0.099 at 10% significance level) signifying that as the number of non-executive directors decreases effective tax rate increases.

However, the result further reveals that discretionary accrual and well as the control variables account for the 51.2% of the variations in effective tax rate for the period under study, as the $R^2 = 0.512$ while the remaining 48.8% of the effective tax rate variations is accounted for by other factors outside the model study.

Moreover, Variance Inflation Factor (VIF) test was carried out, the results of which provide evidence of the absence of multicollinearity. This is because the results of the VIF test has a minimum of 1.049 and maximum of 1.450 which clearly shows absence of multicollinearity. Hence, VIF of 5.00 still indicate absence of multicollinearity (Barde, 2009 and Muhammad, 2009).

### 5.0 Conclusions and Recommendations

After careful review of the result and discussion the study concludes that Nigerian oil and gas companies manage their earnings in form of discretionary accrual to reduce their tax.
burden and this erodes the quality of financial reporting. Larger number of board size leads to payment of low taxes as the study reveals that board size display a positive and significant relationship with corporate tax. Highly profitable companies among the Nigerian oil and gas companies pay more taxes, as such the companies tend to manipulate their earnings to reduce tax burden which erodes the quality of financial reporting. Board composition of Nigerian oil and gas companies displays significant relationship on corporate tax. As such higher number of independent directors may lead to paying low tax.

Thus, the study recommends that; The management of Nigerian oil and gas companies should device other means of reducing their tax burden apart from earnings management like tax planning since earnings management erodes the quality of financial reporting. In addition, auditors should be proactive to their responsibilities especially that earnings management erodes the quality of financial reporting.
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THE IMPACT OF IC COMPONENTS ON FINANCIAL PERFORMANCE OF NIGERIAN FOOD PRODUCTS COMPANIES

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ABSTRACT
This paper examines the impact of Intellectual Capital (IC) Components on the financial performance of Nigerian Food Products Firms over the period 2008 - 2014. A sample of seven firms listed on the floor of Nigerian Stock Exchange was studied. The study made use of secondary data generated from annual reports and accounts of the sampled companies and the Nigerian Stock Exchange Fact book. The data were analyzed using the Value Added Intellectual Coefficient (VAIC) Model as proposed by Pulic (2000). The Value Added Intellectual Coefficient Components are; the Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE) and Capital Employed Efficiency (CEE). Return on Assets (ROA) was used as a proxy to measure Company’s financial performance. The study further examines the impact VAIC components on company performance by means of descriptive statistics and regression analysis using STATA 11 package. The results reveal All IC Component have positive relationship with financial performance of Nigerian Food products Company’s. CEE is statistically significant with financial performance of the firms other components shows insignificant association. Based on the findings, the study recommends among others; organization should give proper attention to the intellectual resources, so that the financial performance of the organization will improves. As such, the IC is important capital of the organization because efficiency of IC improves its financial performance.

Keywords: IC, Value Added Intellectual Coefficient, Performance, Food products firms

1.0 INTRODUCTION
Capital, in the business context, refers to any asset that will produce future cash flows. Fathi S (2013). The most well-known asset types are tangible in nature. Tangible capital therefore refers to the physical and financial assets of the organization. The value of such assets is disclosed periodically (by publicly listed companies) and can be found easily on the balance sheet of the Company’s financial records. Physical assets may mean land, machinery, inventory, plants, trucks, etc. whereas financial assets refer to the shareowners equity, retained earnings, working capital, prepaid expenses, accounts receivables, etc. Intangible assets on the other hand, such as the skills of the workforce and its organization, are increasingly becoming important towards determining future profits.

knowledge is the superior to land, labour and capital. This is why many firms and even countries are planning strategies to reposition themselves in the emerging knowledge economy, thereby creating strong competition among firms.

Intellectual capital (IC) is recognized as a strategic asset which gives competitive advantages by driving organizations for superior performance in the modern day knowledge-based economies.

The Intellectual Capital (IC) of a company consists of all employees, their organization and their ability to create value, which is evaluated at the market. As such, it is not enough to monitor the capital employed but also the intellectual capital efficiency. A company can have the best qualification structure, i.e. intellectual potential, but if it creates little value with regard to its resources, its intellectual ability is low. Therefore, the challenge of today’s knowledge economy is the efficient management of knowledge, and its relevant form in economy, been the driving force behind business success in today’s knowledge economy and global, dynamic and complex business environment. And as such, Intellectual capital becomes the key factor of value creation.

According to Zhang, Zhu & Kong, (2006), the human capital is the main component of the intellectual capital that may influence the firm performance. In fact, the definition of intellectual capital has been introduced by Itami, (1980). Stewart, (1997) has defined the intellectual capital as the knowledge, information and experience. Edvinsson and Alone, (1997) have defined the intangible capital as the difference between the firm’s market value and the book value. Pulic, (2001) has incorporated in the definition of the intellectual capital the employees and their ability in creating value. The intangible assets can be classified in three big categories these are: the human capital, which consists of knowledge, training and competence, the structural capital which consists of the routines, procedures, systems, culture and database and the capital employed which represents the value of the assets that contribute to a company’s ability to generate revenue and it is also known as operating assets. Edvinsson and Malone, (1999).

A very widely used management tool or model for intellectual capital performance that has been extensively reported in the literature is Value added intellectual coefficient (VAIC). VAIC was developed and applied by Ante Pulic (2000). It indicates to business managers and to policy makers how well they are converting Intellectual resources into financial wealth and whether their conversion performance is improving or deteriorating using the VAIC.

Despite the large number of research studies in the area of Intellectual Capital (IC) around the world during the last two decades, and despite the significant number of VAIC applications, no study has been reported, to the knowledge of the authors and based on the current review of literature, that investigate the Intellectual Capital situation in general or the application of VAIC in the Nigerian Food Product sub sector. As such the contribution of this current study is to motivate Intellectual Capital research in general and to further apply VAIC in other sectors of the Nigerian economy at large.

This study aimed at examining the impact of intellectual capital components on financial performance of Nigerian Food Products firms between the period (2008-2014) calendar year using the efficiency coefficient called "Value Added Intellectual Coefficient" (VAIC) model. To achieve this, the researcher developed econometric model that link variables which reflect the effects of each components of intellectual capital variables on the performance of food product companies’ especially financial performance.

The remaining part of this paper proceeds as follows; the next section review related literature on the subject matter and section three and four discussed the research methodology and data analysis result respectively. Finally the last section draws conclusion and recommendation on the discussion.
2.0 LITERATURE REVIEW

Knowledge has been recognized as valuable resources by researchers. The most well-known asset types are tangible in nature. Physical assets can mean land, machinery, inventory, plants, trucks, etc. whereas financial assets refer to the shareowners equity, retained earnings, working capital, prepaid expenses, accounts receivables, etc. Intangible assets on the other hand, such as the skills of the workforce and its organization, are increasingly becoming important towards determining future. Intellectual capital simply means the knowledge resources of an organization. Success of organizations depends on creating, discovering, capturing, disseminating, measuring knowledge Akpinar and Akdemir (2012) cited by Fathi S (2013). If organizations enhance their organizational learning, they will increase their knowledge and intellectual capital. Learning suggests ongoing, never-ending and always changing. It is the foundation of adaptability and innovation.

Akpinar and Akdemir (2012 cited by Fathi (2013) see intellectual capital in the millennium as less people will do physical work and more people will do brain work. This is Intellectual capital. It doesn’t appear on the company balance sheet but it has more value for organizations than physical assets. Economic wealth is driven more by knowledge and information than the production process.

Value Added Intellectual Coefficient (VAIC) is a method developed by Pulic (2000), which monitors and measures the value creation efficiency in the company according to accounting based figures. The VAIC model is intended to measure the extent to which a company produces added value based on intellectual (capital) efficiency or intellectual resources (Stahle, Stahle&Aho, 2011): Human capital (HC) is interpreted as employee expenses and human capital efficiency (HCE) is calculated by dividing VA (added value) with HC (human capital);

- Structural capital (SC) is difference between produced added value (VA) and human capital (HC). Structural capital efficiency (SCE) is calculated by dividing SC (structural capital) with VA (value added);
- Capital employed (CE) is interpreted as financial capital and capital employed efficiency (CEE) is calculated by dividing VA (value added) with CE (capital employed).
- Value added intellectual coefficient VAIC is a sum of HCE, SCE and CEE.

As summarized by Boujelbene&Affes (2013), human capital captures the knowledge, professional skills, experience and innovativeness of employees within an organization, whereas structural capital consists of the structures and processes employees develop and deploy in order to be productive, effective and innovative. VAIC measures how much new value has been created per invested monetary unit of resources. A high coefficient indicates a higher value creation using company resources.

Capital employed efficiency (CEE) shows how much new value has been created by one unit of investment in the capital employed.

Human capital efficiency (HCE) indicates how much value added has been created by one financial unit invested in the employees.

Structural capital efficiency (SCE) is the indicator of the value added efficiency of structural capital

Majority of studies used the model value added intellectual coefficient (VAIC) to evaluate the relationship between intellectual capital and corporate performance. Among these studies; Berzkalne and Zelgalve (2013) investigate the impact of intellectual capital on company value. The result show that there is a mixed results regarding relationship between values added intellectual coefficient (VAIC) and company value.

In the same vein, Salman, Mansor and Babatunde (2012) examine s the impact of intellectual capital components on return on assets (ROA). The result shows that, relationship exists between intellectual capital components efficiencies and company performance.
Yusuf (2013) conducted an empirical research on the relationship between Human capital efficiency and financial performance on Nigerian Banks. The study found that efficient utilization of human capital does not have any significant impact on the return on equity of banks.

Najibullah (2005) cited by Yusuf (2013) studied the relationship between the value creation efficiency and firms’ market valuation and financial performance. The result showed that there is no strong association between the studied variables. Mohiuddin (2006) study measures the intellectual capital performance of 17 commercial banks in Bangladesh for the period (2000-2004) and discovered that VAIC method provide information about the value creation efficiency of tangible and intangible assets within a firm. Makki and Ladhi (2008) examine the relationship between intellectual capital efficiency and the firms’ profitability. The result supports the argument that intellectual capital efficiency contributes significantly to the firms’ profitability.

Khan et al (2012) studied the impact of intellectual capital on financial performance of banks in Pakistan; the hypothesis shows that intellectual capital has significant effect on the financial performance of banks. Tseng and Goo (2005) on their study the relationship between intellectual components and corporate value of Taiwanese manufacturing companies, the result revealed that there is a positive relationship between intellectual and corporate value. Kujansiva and Lonngvist (2007) do not find clear evidence of the relationship between intellectual capital and company performance of Finland companies. Firer and Williams (2003) discover no relationship between intellectual capital components efficiency and financial performance of South Africa companies.

The study of Maditions et al (2011) and Laing et al (2010) in Athens and Australia on empirical relation of intellectual capital efficiency is based on human capital efficiency has significant and positive relation with financial performance. Al-shubiri (2013) conducted a research on the impact of value added intellectual coefficient components on financial health in Jordanian industrial sector from (2005-2011) indicates a statistically significant impact of human, employed element and intellectual capital as whole and financial health as productivity and profitability.

Musibah and Alfattani (2013) examine and ascertain the effects of intellectual capital on corporate social responsibility CSR for Islamic Banks sector (2007-2011). Results showed that intellectual capital has a negative impact on corporate social responsibility of Islamic Banks. Abdulsalam, Al-Qaheri and Al-khayyat (2011) measure the intellectual capital efficiency of the Kuwaiti Banks and the result showed a mixed relationship between intellectual components and performance of Kuwaiti Banks.

Despite the large number of empirical studies conducted in the area of intellectual capital around the world over two decades, still no consensus has been reached on its role on corporate performance. This is because of the mixed and inconsistent results in studies conducted in different countries. And it is clear from the literature that intellectual capital is an asset of the company and an increase in intellectual capital should increase the value of the company as well. The mixed and inconclusive results in the subject intellectual capital and its impact on firms performance is topical and requires more research.

3.0 METHODOLOGY

This study adopts the non- survey research design (ex-post facto). This is because of the fact that, the study relies on annual reports and account of the sampled firms. The population of this study comprises of all the quoted firms in food products companies in Nigeria as at 31st december, 2014. These firms are shown in table 1 below.
### Table 1 population of the study

<table>
<thead>
<tr>
<th>S/NO</th>
<th>NAME OF COMPANY</th>
<th>DATE INCORPORATED</th>
<th>DATE LISTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Big Treats plc</td>
<td>1991</td>
<td>6th Dec, 2007</td>
</tr>
<tr>
<td>2</td>
<td>Dagote flour mills plc</td>
<td>January, 2006</td>
<td>4th Feb, 2008</td>
</tr>
<tr>
<td>3</td>
<td>Dangote Sugar Refinery plc</td>
<td>4th Jan, 2005</td>
<td>8th March, 2007</td>
</tr>
<tr>
<td>4</td>
<td>Flour mills of Nigeria plc</td>
<td>29th Sept, 1960</td>
<td>14th Aug, 1979</td>
</tr>
<tr>
<td>5</td>
<td>Honeywell flour mills plc</td>
<td>2008</td>
<td>20th Oct, 2009</td>
</tr>
<tr>
<td>6</td>
<td>Multi-trex Integrated foods plc</td>
<td>30th Oct, 1999</td>
<td>1st Nov, 2010</td>
</tr>
<tr>
<td>7</td>
<td>Northern Nigeria Flour mills plc</td>
<td>20th Oct, 1971</td>
<td>1978</td>
</tr>
<tr>
<td>8</td>
<td>National Salt company of Nigeria Plc</td>
<td>30th April, 1973</td>
<td>20th Oct, 1992</td>
</tr>
<tr>
<td>9</td>
<td>P. S Mandrides Plc</td>
<td>9th July, 1949</td>
<td>Feb, 1979</td>
</tr>
<tr>
<td>10</td>
<td>UTC Nigeria Plc</td>
<td>1969</td>
<td>31st Jan, 1972</td>
</tr>
<tr>
<td>11</td>
<td>Union Dicon Salt Plc</td>
<td>7th May, 1992</td>
<td>23rd Sept, 1993</td>
</tr>
</tbody>
</table>

Generated by the researcher from NSE Fact book 2014

Availability of relevant data is very important for studies of this nature. Therefore for any company in table 1 above to qualify as a member of the working population, the researcher came up with some filters so as to have accurate analysis. Firstly, only those firms who have quoted without being delisted from 2008 to 2014 and annual reports must be available at the Nigerian Stock Exchange. Upon applying the filters, the working population of the study is shown in table 2 below.

### Table 2 working population of the study

<table>
<thead>
<tr>
<th>S/NO</th>
<th>NAME OF COMPANY</th>
<th>DATE INCORPORATED</th>
<th>DATE LISTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dangote Sugar Refinery plc</td>
<td>4th Jan, 2005</td>
<td>8th March, 2007</td>
</tr>
<tr>
<td>2</td>
<td>Flour mills of Nigeria plc</td>
<td>29th Sept, 1960</td>
<td>14th Aug, 1979</td>
</tr>
<tr>
<td>3</td>
<td>Northern Nigeria Flour mills plc</td>
<td>20th Oct, 1971</td>
<td>1978</td>
</tr>
<tr>
<td>4</td>
<td>National Salt company of Nigeria Plc</td>
<td>30th April, 1973</td>
<td>20th Oct, 1992</td>
</tr>
<tr>
<td>5</td>
<td>P. S Mandrides Plc</td>
<td>9th July, 1949</td>
<td>Feb, 1979</td>
</tr>
<tr>
<td>6</td>
<td>UTC Nigeria Plc</td>
<td>1969</td>
<td>31st Jan, 1972</td>
</tr>
<tr>
<td>7</td>
<td>Union Dicon Salt Plc</td>
<td>7th May, 1992</td>
<td>23rd Sept, 1993</td>
</tr>
</tbody>
</table>

Generated by the researcher from table 1

Considering the number of working population of the study, all the companies were considered as a sample of the study. Data was collected from 2008-2014 fiscal year financial statement of the sampled firms. The sample was limited to one sector so as to obtain a homogeneous sample that is Nigeria Food Products Companies. The adoption of this method is informed by the fact that in previous similar studies salmon R.M (2012). Kurawa M.J(2014) annual reports and account were used.
This study adopt the Model Value Added Intellectual Coefficient (VAIC), developed by Ante Pulic (1998, 2000, 2004) cited in Zehri C (2012). The Model presented an indirect measure of intellectual capital. It consists essentially of measuring the value added by the resources of the company, based on the relationship between the three major components viz; the capital employed the Human Capital, and the Structural Capital. This Model is in line with the work of Yusuf (2013), Salman (2012), Salem(2013), Berzkalne(2013).

Value Added Intellectual Coefficient (VAIC) was first introduced by Pulic (2000) as a method of assessing the efficiency of intellectual asset. The Model is developed to assess and evaluate the efficiency in adding value (VA) to a company's total resources. This method is very relevant because it allows measuring the contribution of all the Human, Structural, Material and Financial Resources to create value added by the company Zehri(2012).

Multiple Regressions is used to highlight the effect of the independent variables on the dependent variables. The tests are based on an estimate panel data with metric variables. The data will be processed by the software STATA 11. Linear regression equation of this study was developed as;

\[ \text{ROA}=\beta_0+ \beta_1(\text{HCE})+ \beta_2(\text{SCE})+ \beta_3(\text{CEE})+ \beta_4(\text{size})+ \beta_5(\text{LEV})+\varepsilon \]

Table 3 describe the variables used for the study.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Ratios</th>
<th>entitled</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPENDENT</td>
<td>ROA</td>
<td>Operating profit / total assets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>financial performance</td>
</tr>
<tr>
<td>INDEPENDENT</td>
<td>HCE</td>
<td>Added value / human capital</td>
</tr>
<tr>
<td>VARIABLES</td>
<td></td>
<td>coefficient of the added value created by human capital</td>
</tr>
<tr>
<td></td>
<td>SCE</td>
<td>Structural capital / value added</td>
</tr>
<tr>
<td></td>
<td></td>
<td>coefficient of the added value created by the structural capital</td>
</tr>
<tr>
<td></td>
<td>CEE</td>
<td>Added value / capital employed (capital employed= total assets - intangible assets)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>coefficient of the added value created by the employed capital</td>
</tr>
<tr>
<td>CONTROL</td>
<td>SIZE</td>
<td>the natural logarithm of total assets</td>
</tr>
<tr>
<td>VARIABLES</td>
<td></td>
<td>Size of firm</td>
</tr>
<tr>
<td></td>
<td>LEV</td>
<td>Total debt / Total Asset</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level of debts</td>
</tr>
</tbody>
</table>

Generated by the researcher (2014)

4.0 DATA ANALYSIS, RESULT AND INTERPRETATION

Below is the presentation and discussion of results of the data generated from the financial statements of the sampled firms.
Table 4: Descriptive statistics result

<table>
<thead>
<tr>
<th>Variables</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>35</td>
<td>-0.014385</td>
<td>0.410542</td>
<td>-1.268820</td>
<td>0.518302</td>
</tr>
<tr>
<td>HCE</td>
<td>35</td>
<td>2.881919</td>
<td>4.691585</td>
<td>-3.001302</td>
<td>22.77367</td>
</tr>
<tr>
<td>CEE</td>
<td>35</td>
<td>0.299407</td>
<td>0.230628</td>
<td>-0.299971</td>
<td>0.840956</td>
</tr>
<tr>
<td>SCE</td>
<td>35</td>
<td>1.322485</td>
<td>3.892325</td>
<td>-1.560424</td>
<td>23.13267</td>
</tr>
<tr>
<td>SIZE</td>
<td>35</td>
<td>6.595032</td>
<td>1.078361</td>
<td>4.816155</td>
<td>8.236812</td>
</tr>
<tr>
<td>LEV</td>
<td>35</td>
<td>2.161426</td>
<td>4.691585</td>
<td>0.324696</td>
<td>17.21250</td>
</tr>
<tr>
<td>VAIC</td>
<td>35</td>
<td>4.503811</td>
<td>5.850117</td>
<td>-1.534789</td>
<td>24.57071</td>
</tr>
</tbody>
</table>

Source: Generated by the researcher from the Annual Reports and Account of the sample using STATA 11

The results presented in table 4 above, shows that the mean value (Average value) added by human capital efficiency (HCE) is 2.8819 and this value varies between -3.0013 and 22.7737 with standard deviation of 4.6916. It also reveal that the average value added by structural capital efficiency (SCE) is 1.3225 and it varies between -1.5604 and 23.1327 with standard deviation of 3.8923. So also the result of value added by capital employed efficiency is 0.2994, added value varies between -0.1299 and 0.8409 with standard deviation of 0.2306.

Based on the result of the three component of intellectual capita (IC) above, the total value added created by the Intellectual capita (IC) of Nigerian Foods Products Firms reveals that the mean of VAIC is 4.5038 and it varies between -1.5347 and 24.5707 with a standard deviation of 5.8501. Therefore, the result shows that Nigerian Food Products Firms create on Average of 4.5038 (Naira) for every one Naira invested in intellectual capital. The result also revealed that Nigerian Food Product firms create on average more effective added value through human capital than other related variables to it.

Table 5: Correlation matrix of variable result:
This explains the link between the study variable.

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>HCE</th>
<th>CEE</th>
<th>SCE</th>
<th>SIZE</th>
<th>LEV</th>
<th>VAIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HCE</td>
<td>0.6148</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEE</td>
<td>0.6908</td>
<td>0.6755</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCE</td>
<td>-0.0971</td>
<td>-0.1088</td>
<td>-0.2674</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>0.6696</td>
<td>0.6641</td>
<td>0.6015</td>
<td>-0.2198</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>-0.7707</td>
<td>-0.3994</td>
<td>-0.415</td>
<td>0.0232</td>
<td>-0.5918</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>VAIC</td>
<td>0.4556</td>
<td>0.7562</td>
<td>0.4032</td>
<td>0.5676</td>
<td>0.4100</td>
<td>-0.3212</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Source: Generated by the researcher from the Annual Reports and Account of the sample using STATA 11

The correlation matrix result shows each variable is perfectly correlated with itself and have strong positive relationship between HCE and CEE to ROA. The independent variable SCE has a negative correlation with ROA meaning that an increase in the rate of structural capital efficiency will lead to decrease in ROA. But HCE and CEE has positive
correlation with ROA which implies that increase in the rate of HCE and CEE will bring an increase in ROA.

The correlation coefficients among the explanatory variables are not strong to cause multi-co linearity problem in the regression model as validated by the variance inflation Factor (VIF). Multicollinearity feature exists when the value of VIF is less than 0.2 (Stat notes, 2007) cited by Kurawa and Kabara (2014).

<table>
<thead>
<tr>
<th>Variables</th>
<th>VIF</th>
<th>1/VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIZE</td>
<td>2.51</td>
<td>0.398697</td>
</tr>
<tr>
<td>HCE</td>
<td>2.34</td>
<td>0.428059</td>
</tr>
<tr>
<td>CEE</td>
<td>2.13</td>
<td>0.468609</td>
</tr>
<tr>
<td>LEV</td>
<td>1.60</td>
<td>0.626536</td>
</tr>
<tr>
<td>SCE</td>
<td>1.14</td>
<td>0.878463</td>
</tr>
</tbody>
</table>

Source: Generated by the researcher from the Annual Reports and Account of the sample using STATA 11

Regression result: Regression model was developed to test the linear relationship between dependent and independent variables. To test the quality of the linear fit of the model, the researcher calculated the coefficient of multiple regressions as shown in the table below.

Table 6: GLS Regression result:

<table>
<thead>
<tr>
<th>ROA</th>
<th>Coefficients</th>
<th>Std. Errors</th>
<th>Z</th>
<th>P&gt;</th>
<th>ZI</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCE</td>
<td>0.0103251</td>
<td>0.0118682</td>
<td>0.87</td>
<td>0.384</td>
<td></td>
</tr>
<tr>
<td>CEE</td>
<td>0.6385832</td>
<td>0.2304123</td>
<td>2.77</td>
<td>0.006</td>
<td></td>
</tr>
<tr>
<td>SCE</td>
<td>0.0039915</td>
<td>0.0099101</td>
<td>0.40</td>
<td>0.687</td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>0.0261282</td>
<td>0.0535342</td>
<td>0.49</td>
<td>0.626</td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>-0.0485624</td>
<td>0.0102404</td>
<td>-4.74</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-0.3079679</td>
<td>0.3500778</td>
<td>-0.88</td>
<td>0.379</td>
<td></td>
</tr>
</tbody>
</table>

R-square
Within 0.0057
Between 0.9660
Overall 0.7745

Probability 0.0000

From the result of multiple linear regression above, the coefficient of determination R² result indicates that the variables used in the Model account for about 77.45% change in dependent variable ROA (financial performance) While remaining 22.55% are determine by other factors not included in this study.
It is also clear from the result that all independent variables (HCE, CEE, and SCE) are passively related with the company’s financial performance. However, the general overall probability is positively significant at 1%.

The relationship between ROA and HCE is positive but not significant, this can be justified through the positive “z” value of 0.87 and $P>|z| = 0.384$ it has been also been validate by the positive coefficient of $0.0103251$ which means that, an increase in HCE by one more unit, other independent variables remaining constant increases the industry ROA by $0.0103251$. This implies that, HCE has a positive but non-significance relationship with ROA. This result is consistent with the findings of Yusuf I. (2013). In the same vain contradict the findings of Al-shubiri (2013) and Makki & Ladhi (2008).

CEE have a positive and significant relationship with ROA at 5%. This means that increase in CEE will lead to increase in ROA with $0.6385832$ or 64% ceteris paribus. This result is consistent with the findings of Firer and Williams (2003). So also the relationship between ROA and SCE is positive but not significant, this can be justified through the positive “Z” value of 0.40 and $P>|Z| = 0.687$ it has been also been validate by the positive coefficient of $0.0039915$ which means that, an increase in SCE by one more unit, other independent variables remaining constant increases the industry ROA by $0.0039915$. This implies that, SCE has a positive but non-significance relationship with ROA.

Conversely, the relationship between ROA and LEV is negative and significant, this can be justified with the negative “Z” value of $-4.74$ and $P>|Z| = 0.000$. Similarly the results negative coefficient of $-0.0485624$ attest that, an increase in LEV by one more unit, other independent variables remaining constant decreases the industry ROA by $-0.0485624$. This implies that, LEV has an inverse relationship with ROA. On the other hand, there is positive relationship between ROA and Size of the firms but not statistically significant, this can be justified through positive "Z" value $0.49$ and $P>|Z| = 0.626$ this means that increase in Size will lead to insignificant increase in ROA.

The results of the study are consistent with other studies conducted on the subject matter in different countries. The results reveal that future performance of a firm depends upon its intellectual capital efficiency.

5.0 CONCLUSION AND RECOMMENDATION:

Based on the regression result above, it is clear that all the component of intellectual capital have positive relationship with the financial performance of Nigerian Food Products firms. But only CEE that have significant impact on ROA, this could be due to the fact that many food products managers especially in developing countries like Nigeria concentrate more on Capital employed than investing on Human and Structural capital to manage the capital employed effectively. As a result, Human and Structural capital contribute less towards overall performance of food products firms.

The study recommends that Foods Product Firms should invest more on assets of Knowledge and encourage the efforts of human development, training and motivating them while giving flexibility to employees for the purpose of creativity and innovation, in order to increase their performance.
References:
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Uadiale M.O. and Uwuigbe U., (2011); Intellectual Capital and Business Performance: Evidence from Nigeria. Interdisciplinary journal of Research in Business 1(10), 49-56


EFFECT OF AFTER SALES SERVICE QUALITY ON CUSTOMER SATISFACTION AND RETENTION: A CASE OF GAME STORE KANO, NIGERIA

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&

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Abstract

Customer satisfaction plays an important role to the success and continuous existence of the firm. The main purpose of every business organization is to satisfy its existing customers and to attract new customers. This study was aim to examine the effect of after sales service quality on the customer satisfaction and retention. The target populations under this study constituted 870 Game store after sales service customers who got after sales service more than one time. Judgemental sampling (purposive sampling) was also selected which enabled the researcher to select the sample based on his own judgement about some characteristics required from the sample respondents. The principal instruments used for this study was questionnaire and the questionnaire was designed to 10-point Likert scale. The study data was collected from 255 after sales service customers, with the help of 3 after sales service technician coordinators and 3 foremen at Game Store Kano. Structural Equation Modelling (SEM) was employed to test the hypothesized model of the study. The result of structural equation modelling (SEM) shows that after sales service quality affects customer satisfaction. The result shows also that after sales service quality affect customer retention. The result also confirms that customer satisfaction is an important factor that influences customer retention. It is recommended that firm should investigate the most significant after sales service quality dimension, in order to fit customer’s priority with what the organization gives much attention. This will help companies to better understand various service quality that affect overall service customer satisfaction.

Keyword: After Sales Service Quality, Customer, Satisfaction, and Retention

1. Introduction

Service industries are playing an increasingly essential role in the overall development of economies of the countries of developed and developing countries. The 21st century is considered to be as the service industry as confirmed by previous studies (Parasuraman, Zeithaml, & Berry, 1985; Kotler, 2000; Angelova & Zekiri, 2011). Service quality has become a major area of attention during the past few decades for managers, researchers, practitioners because of its huge impact on business performance of firms. Thus, the attainment of quality in products and services has become a drive concern of the 1980s. Customers judge service quality relative to what they want by comparing their perceptions of service experiences with their expectations of what the service performance should be (Gronroos & Christian, 1978). Marketers described and measured only quality with tangible goods, whereas quality in services was largely undefined and un-researched (Angelova
Quality in a service business has become a measure of the extent to which the service provided meets the customer’s expectations. Companies have found that in order to increase profits and market share, they should pay much attention to service quality. Service quality has become a key strategic factor for companies to differentiate their products and services from other competitors by using service quality as a process that customer evaluate (Angelova & Zekiri, 2011; Javed, Gupta & Saxena, 2015).

Customer satisfaction has been a central concept and an important goal of today’s business activities. Many companies face their competition, because they move from a product and sales philosophy to a marketing philosophy, which in turn gives firms a better chance of performing business competition (Kotler, 2000). Customers that are very satisfied with a company are very likely to remain with that company that leads to future revenue for the company. It is now a widely accepted business theory that customer retention optimizes profitability; the cost of acquiring new customers is higher than the cost of retaining existing customers. Therefore, the aim of a service company is to satisfy their customers in order to stimulate them to retain and to repeat their service purchase (Gupta & Dhillon, 2015). Customer satisfaction through quality sales and after-sales service remains one of the main factors affecting customer retention. The customer’s overall satisfaction with the services of the organization is a function of all the encounters/experiences of the customers with that organization. Similar to service quality, customer satisfaction can occur at multiple levels in an organization, for example, satisfaction with the contact person, satisfaction with the core service and satisfaction with the organization as a whole (Mustofa, 2011; Boafo, 2015).

The objectives of this study are three. The first objective is to investigate whether after sales service quality has a significant effect on customer satisfaction of Game store Kano. The second objective of this study is to examine whether after sales service quality has a significant effect on customer retention of Game store Kano. The final objective is to investigate the significant effect of customer satisfaction on customer retention of Game store Kano.

Some studies have been conducted on self-service quality in Nigeria, most of which are well documented in the literature of marketing. These studies include that of Mwegerano, Kankaaranta, and Hameenoja, (2012) Oko and Onuoha (2013), Ldokunn Adeyemi and Ogunleye (2013) who used primary data obtained from targeted respondents to examine the relationship between after sales service quality and customer satisfactions. From the above literature, the evaluation of the effect of self service quality on customer satisfaction and retention is considered essential given limited research on this topical issue in Nigeria. This study is therefore; aimed at filling this gap by investigating the effect self-service quality on customer satisfaction and the effect of customer satisfaction on customer retention of Game store Kano Nigeria. The study will be restricted to Game store customer in Kano. This is considered enough to make a meaningful contribution to the empirical research. The target respondents were selected in this study because they have encountered sufficient experience on the subject matter.

This paper is organised into five sections. Section one, which is the introduction. Section two, which is the next section review related literature and hypotheses development on the subject matter of the study. Section three discussed methodological issue of the paper and measures of the variables of the study. Section four is the results and discussion. Finally, section five gave the conclusion and recommendation of the paper.

2. Literature Review, Theoretical Framework and Hypotheses Development

After sales service has been a most debateable subject in the area of marketing and has been directly linked to customer satisfaction and customer retention. Numerous studies on aftersales service and customer satisfaction has been conducted by many renowned researchers like, Bitner (1990), Bolton and Drew (1991), McDougall and Levesque (1994),
and more recently Cronin, et al. (2000) and Gupta and Dhillon (2015) which they have established perceived service value as a fundamental determiner of customer satisfaction for a firm. They noted that customer satisfaction can be increased in many ways.

From the result of the study conducted by Angelova and Zekiri (2011), to apply the ACSI model in the context of service quality in the Macedonian mobile telecommunication industry. It was found that the service quality perceived by the customers was not satisfactory, that expectations were higher than perceptions. The result also indicated that customers were not satisfied with service. Gupta and Dhillon, (2015) study the impact of after sales service on customer satisfaction. The study focused on understanding the dynamics of after sale service and its importance in the mobile phone industry along with its impact. The study uses a structured close ended questionnaire to conduct survey among 500 respondents selected on random basis. The study found that there is high efficiency among mobile phone retailers in delivering after sale services to their customers. Also, the efficiency of after sale service had a direct and positive relationship with customers’ satisfaction level.

A study by Ladokun et al. (2013) showed that the product delivery, installation and warranty were significantly affect customer satisfaction and retention. Another study by Oko and Onuoha (2013) shows that after-sales services impact positively on consumers’ perception of quality loyalty. A result of the study by Boafo (2015) revealed that, PHC motors sales service quality inspired trust and confidence. The study also revealed that customers were satisfied with the service quality of the company and they are of the view that service quality is the reason why they patronize the company’s products.

Empirical study by Shaharudin, Yusof Elias and Mansor (2009) investigate factors affecting customer satisfaction in after-sales service of Malaysian electronic business market. The result of their study indicated that there was strong relationship between the dependent variables (customer satisfaction and three independent variables (Delivery, installation and warranty). Another empirical study by Hussain, Bhatti, and Jilani (2010) examine after sales service quality of Pakistan’s automotive battery manufacturer. The research measured the quality of service in Atlas Battery. The study main variables effecting customer satisfaction are product quality and social responsibility. The results reveal that customer satisfaction increases with better service delivery. Asadollahi, Jahanshahi, and Nawaser (2011) studied service quality and customer satisfaction in automobile after sales services in two Indian companies and one foreign company. The result shows that two Indian companies have no significant difference in all the dimensions but showed a meaningful significant difference with other foreign company in all the dimensions.

Fazlizadeh, Bagherzadeh and Mohamadi (2011) investigate the effect of after-sales services on customers’ satisfaction as well as on their behavioural intentions. Their study conducted at customers of a large retail chain marketing home appliances in Iran. The study found that after-sales service quality, affect satisfaction, which in turn affects behavioural intentions. A study by Shuqin, and Gang (2012) investigate the relationship between after sales service qualities in China Automobile sector. The study found that fairness, empathy, reliability and convenience have significant positive impact on customer satisfaction while responsiveness doesn’t have a significant impact on customer satisfaction.

Khan (2012) examines customer satisfaction, and customer retention on customer loyalty in telecom industry of Pakistan. Questionnaires were distributed through electronic mail and self-administered for data collection. The results of the study show that customer satisfaction has significant impact on customer retention while customer retention has insignificant impact on customer loyalty. Another similar study by Maghsoudlou, Mehrani and Azmainvestigate (2014) investigate the role of after-sales service in customer satisfaction (Case study: Samsung house appliances). The result of the study found that between After-sales service and customer satisfaction has significant positive relationship. A study by Mustofa (2011) indicate that after sale services (maintenance, spare parts supply, telephone
service, warranty, car washing, and documentation services) has significant effect on customer satisfaction and loyalty, and after sale service has positive effect on satisfaction and loyalty.

Sattari (2007) argue that in order to study customer satisfaction on services the disconfirmation of expectations, value-percept disparity theory and Regret theories are applicable. Accordingly, the theories that will guide this research are the disconfirmation of expectations and regret theory. The disconfirmation or expectations theory holds that satisfaction/dissatisfaction responses arise from a cognitive evaluation process in which pre-purchase “expectations” or prior beliefs about the likelihood of product-related experiences or outcomes are retrieved from memory and compared to cognitions about the product-related experiences or outcomes actually realized in the consumption of the product. The result of this comparison is expectancy disconfirmation, which ranges from negative (expectations exceed realized outcomes) through zero (expectations just equal realized outcomes) to positive (realized outcomes exceed expectations) (Mustofa, 2011). Regret theory was developed by Taylor (1997) which proposes a richer notion of satisfaction that included expectations about un-chosen option. The theory retains the basic expectancy disconfirmation paradigm as a bases for regret theory approach. According to the theory regret directly influences the consumers’ decision to purchase again. Marketers try to diminish negative feelings about the product or service by reducing post decision dissonance and regret (Sattari, 2007).

2.1 Hypotheses Development

The after sales service quality literature reveals that satisfied customers have a positive perception of the service providers. Research findings further direct that customer satisfaction is an intervening variable between after sales service quality and customer retention (Wong, Tong & Wong, 2014; Ladokun et al. 2013; Khan, 2012). These findings are generally consistent with the study of Maghsoudlou et al. (2014), Mishra (2014) and Boafo (2015) which concluded that after sales service quality affects customer satisfaction. Customer satisfaction enhances a customer retention, which in turn contributes to customer loyalty.

To test whether this direct relationship also holds in the Game store setting, it was hypothesized that:

**H1:** After sales service quality has a positive effect on customer satisfaction in Game store Kano.

**H2:** After sales service quality has a positive and direct effect on customer retention in Game store Kano

**H3:** Customer satisfaction has a positive effect on customer retention in Game store Kano.

2.2 Research Model

This study investigated after sale service on customer satisfaction and customer retention. These variables were identified based on previous literature (Attafar, 2011; Rizaimi et al. 2009). Based on the above literature review and the three hypotheses developed, a research model with three constructs was developed as illustrated in Figure 1 below.
After sales service quality is the only independent construct and customer retention is the only dependent construct in this study. Customer satisfaction is the mediating construct. The solid lines in Fig.1 indicate direct effects, i.e. $H_2$.

In this model, this study will examine the direct effect and indirect effect of after sale service quality on customer satisfaction and customer retention. If the direct effect of after sale service quality on customer retention is reduced and the indirect effect (through Customer Satisfaction) is significant, then customer satisfaction is said to play a mediating role in linking after sale service quality to customer retention indirectly.

3. Method and Material

The survey research design method was used in this study. The target populations under this study constituted 870 Game stores after sales service customers who got after sales service more than one time. Judgmental sampling (purposive sampling) was also selected which enabled the researcher to select the sample based on his own judgment about some characteristics required from the sample respondents. Data was collected from 255 after sales service customers through questionnaire, 3 after sale service technician coordinators and 3 foremen at Game Store Kano. The principal instruments used for the purpose of this study are questionnaire, which was designed to 10-point Likert scale. Structural Equation Modelling (SEM) was employed to test the hypothesized model of the study. The data will be analysed using the Statistical Package for Social Sciences (SPSS) software, version 19.0 and AMOS version 21.0.

3.1 Measures

There are seven elements measured of after sale service quality support which must be provided to customers over the working lifetime of product as follows; Maintenance and repair, Online service, Warranties, Documentation, inspection, spare part supply and training (Goffin, 1999; Attafar, 2011)

Customer satisfaction measurement involves the collection of data that provides information about how satisfied or dissatisfied customers are with a service. This information can be collected and analysed in many different ways. Many organizations regularly check the levels of customer satisfaction to monitor performance over time and measure the impact of service improvement (Mustofa, 2011). Customer satisfaction are measured using four key
items such as delivery of the service, timeliness, information (accuracy, enough information, kept informed), professionalism (competent staff, fair treatment), (Anon, 2007). According to Rizaimy et al. (2009), customer satisfaction measures should depend on the five items (Quality, On-time delivery, Money, Issue factor and accommodation and cooperation. Customer retention was assessed based on a four-item whereby the items were adapted from a study by Ro King, (2005), these items include tenure length, discount received, customer replacement cost and volume purchase grow (Boafo, 2015).

4. Results and Discussion

Measurement Model Assessment

The primary aims of this study is to utilise Structural Equation Modelling (SEM) to examine the effect of after sales service quality on customer satisfaction and retention. Before proceeding with the analysis using SEM, the exploratory data analysis and validity and reliability tests were conducted. This is to ensure that the data fulfilled the requirements for SEM analysis. The associations among the latent constructs (self service quality, customer satisfaction, customer retention) and the indicators were tested in a three-factor measurement by using a confirmatory factor analysis (CFA). Multiple criteria were used to interpret the results of the measurement model tested.

Running the (CFA), each item parcel was allowed to load on its hypothesized factor and all three factors were assumed to be related to each other. Covariation among the item errors was not permitted. The analysis resulted in a χ² of 3.26 with 50 degrees of freedom, p<.05. Also in addition to the model chi-square, Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR) fit indices were measured. Values of these indexes were: CFI = 0.972 and RMSEA =0 .079 with a confidence interval of 0.05 to 0.07. These measurement model values shows good model fit since CFI values higher than 0.90, SRMR values smaller than 0.10, and RMSEA values lower than 0.10 are considered favourable (Zainudin, 2014).

Table 1: Result of Confirmatory Factor Analysis (CFA)

<table>
<thead>
<tr>
<th>Model Fit</th>
<th>df</th>
<th>χ²</th>
<th>χ²/df</th>
<th>RMSEA</th>
<th>GFI</th>
<th>CFI</th>
<th>RMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement Model</td>
<td>50</td>
<td>151.309</td>
<td>3.26</td>
<td>0.079</td>
<td>0.929</td>
<td>0.972</td>
<td>0.163</td>
</tr>
</tbody>
</table>

The Average Variance Extracted indicates the average percentage of variation explained by the measuring items for a latent construct. An AVE > 0.5 is required for every construct (AVE is calculated using the given formula)

\[
\text{AVE} = \frac{\sum K^2}{n}
\]

K = factor loading of every item and \( n \) = number of items in a model

Composite Reliability measures the reliability and internal consistency of the latent construct. A value of CR > 0.6 is required to achieve composite reliability for a construct. (CR is calculated using the given formula). And the Average Variance Extracted is the average percentage of variation as explained by the measuring items for a construct. An AVE > 0.5 is required (AVE is calculated using the given formula) (Zainudin, 2014).
The reliability test results show that all the constructs have internal consistencies above the value 0.7 (Table 2). The AVE values for each construct were above 0.5 values that are recommended by Fornell and Larcker (1981). However, in the present study, all the constructs had AVE > 0.5 (Table 2). Similarly, the results in Table 2 show that composite reliability (CR) values were all above 0.7 as recommended by Fornell and Larcker (1981) for construct internal consistency to be evidenced. This implies that all the 12 reflective items in the measurement model are different from each other. Hence, discriminant validity was achieved.

Table 3: The Discriminant Validity Index Summary

<table>
<thead>
<tr>
<th>Construct</th>
<th>After Sale Service Quality</th>
<th>Customer Satisfaction</th>
<th>Customer Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td>After Sale Service Quality</td>
<td><strong>0.83</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>0.59</td>
<td><strong>0.85</strong></td>
<td></td>
</tr>
<tr>
<td>Customer Retention</td>
<td>0.56</td>
<td>0.45</td>
<td><strong>0.92</strong></td>
</tr>
</tbody>
</table>
The diagonal values (in bold) is the square root of AVE while other values are the correlation between the respective constructs. The discriminant validity for all constructs is achieved when a diagonal value (in bold) is higher than the values in its row and column. Referring to Table 3, one can conclude that the discriminant validity for all three constructs is achieved.

**Figure 3:** The AMOS output showing Regression Weights between constructs  
**Note:** All fitness indexes achieved the required level

**Table 3:** The Multiple Regression Weights

<table>
<thead>
<tr>
<th></th>
<th>Beta Estimate</th>
<th>C.R.</th>
<th>P-Value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custom Satisfaction</td>
<td>0.682</td>
<td>6.202</td>
<td>0.001</td>
<td>Significant</td>
</tr>
<tr>
<td>Customer Retention</td>
<td>0.941</td>
<td>8.712</td>
<td>0.001</td>
<td>Significant</td>
</tr>
<tr>
<td>Customer Retention</td>
<td>0.787</td>
<td>4.888</td>
<td>0.001</td>
<td>Significant</td>
</tr>
</tbody>
</table>

**Notes:** *p<0.05, **p<0.01, ***p<0.001

Hypothesis one investigated the effect of after sales service quality on customer satisfaction. The probability of getting a critical ratio as large as 6.202 in absolute value is less...
than 0.001. In other words, the regression weight for after sales services in the prediction of customer satisfaction is significantly different from zero at the 0.001 level (two-tailed). Table 3 shows that the path between the after sales services quality and customer satisfaction is positive (0.682) and statistically significant (p<0.001). Furthermore, the standardized path coefficient shows how much change in After Sales Services quality occurred in corresponds to the change in customer satisfaction. This means that for each unit increase of ASQ; CS would have a 0.682 unit change. Hence, the hypothesis one was supported. It can, therefore, be assumed that after sales service quality significantly affect customer satisfaction in Game store Kano. Much literature has supported this relationship (for example, Mustofa, 2011; Shuqin & Gang, 2012; Fazlzadeh et al., 2011; Shaharudin et al., 2009; Hassan et al., 2010; Wong, Tong & Wong, 2014; Gupta & Dhillon, 2015; Khan, 2012; Maghsoudlou, 2014). The result of this study is contrary to the study conducted by Angelova and Zekiri (2011), to apply the ACSI model in the context of service quality in the Macedonian mobile telecommunication industry. It was found that the service quality perceived by the customers was not satisfactory, that expectations were higher than perceptions. The result also indicated that customers were not satisfied with service.

The second hypothesis of this study examine whether after sales service quality has a significant effect on customer retention of Game store Kano. The probability of getting a critical ratio as large as 8.712 in absolute value is less than 0.001. In other words, the regression weight for ASQ in the prediction of customer retention is significantly different from zero at the 0.001 level (two-tailed). Table above shows that the path between ASQ and customer retention is positive (0.941) and statistically significant (p<0.001). This result indicates that the higher the amount of the ASQ, the higher the customer retention. Furthermore, the standardized path coefficient show how much change in ASQ occurred in corresponds to the change in CR. The standardized coefficient for the path between the ASQ and CS was 0.941, which indicates that ASQ has significant positive effect on customer retention. Hence, the hypothesis two was supported. It can, therefore, assume that after sales service quality affects customer retention positively in the Game store Kano. This hypothesis support many other studies in this area (for example Oko & Onuoha, 2013; Mishra, 2014; Boafo, 2015).

The third hypothesis of this study examine whether customer satisfaction has a significant effect on customer retention of Game store Kano. The probability of getting a critical ratio as large as 4.888 in absolute value is less than 0.001. In other words, the regression weight for customer satisfaction in the prediction of customer retention is significantly different from zero at the 0.001 level (two-tailed). Table above shows that the path between CS and CR is positive (0.787) and statistically significant (p<0.001). This result indicates that the higher the amount of the customer satisfaction, the higher the customer retention. Furthermore, the standardized path coefficient show how much change in CS occurred in corresponds to the change in CR. The standardized coefficient for the path between the CS and CR was 0.941, which indicates that CS has significant positive effect on CR. Hence, the hypothesis three was supported. It can, therefore, assume that the customer satisfaction affects customer retention positively in the Game store Kano. This hypothesis support many other studies in this area (for example Khan, 2012; Ladokun et al., 2013; Boafo, 2015).

5. Conclusion and Recommendation

This study examined the effect of after sales service quality on customer satisfaction and retention with special reference to Game store Kano. This study found that after sales service quality were significantly independent and joint predictors of customer satisfaction. The result also shows that after sales service quality affect customer retention. The result of
this study also confirms that customer satisfaction is an important factor that influences customer retention. Based on this study, it can be concluded that the sales service quality and customer satisfaction are significant factors that influence retention of customers. It can be seen that customers really rely on the prompt delivery of the products, the installation response to be according to specification and requirement, and with the assurance of good quality products that are guaranteed for a certain period of time. When all these three factors are being looked at professionally and efficiently. Customer satisfaction is of utmost importance to build a profitable relationship with the existing customer and attract the potential customer to patronize the products. Such relationship will create a strong loyal customer base that will give the firm a competitive edge for future survival.

It is important that the company to adopt a good aftersales service management to enhance the effectiveness and efficiency to serve the customer. The company should not delay the claim made by a customer and try to fulfill it promises either by repairing or replacing with a new product. Finally, continuous improvement is required through integrated functional activities in order to produce high quality products which in turn can lead to customers’ high satisfaction and confidence. It is important that companies should solve the dissatisfaction of customers in quality, time and price by assessing customer’s satisfaction frequently.
References


HEDGING AS A SUPPLEMENTARY EXCHANGE RISK MANAGEMENT STRATEGY:

EMPIRICAL EVIDENCE FROM THE NIGERIA AUTONOMOUS FOREIGN EXCHANGE MARKET

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Abstract

The exchange rate of Nigerian Naira has suffered series of fluctuation trends on numerous occasions in the last two years. As a result the value of the currency has changed significantly and rapidly many times, impacting on both visible and invisible foreign trade. It is common today to hear importers, exporters and even consumers complaining about the adverse consequences of these trends which manifested in form of general rise in prices of goods and services. Studies have shown that many Nigerian foreign traders, particularly those in the small and medium sector, either lack the basic knowledge on how to manage foreign exchange risk or are skeptical about its efficacy. This is surprising considering how costly, in terms of cash flow and profitability, unfavorable changes in the value of the Naira can be. In response to this gap, this paper utilized secondary data on Naira/Dollar exchange rate spanning over 18 months period (January 2015 to June 2016), to provide an empirical understanding of the intricacies of Naira/Dollar exchange rate and how the resultant trends can affect domestic users of foreign exchange in Nigeria and hence the need for adopting hedging strategy. The paper thus introduces the subject matter of foreign exchange risk, its determination/calculation using facts and figures and its management to both the public and private business sectors in Nigeria. The empirical results clearly established why it makes sense for stakeholders to reduce exposure to currency risk, and in addition highlighted some of the common techniques and instruments that can be used to mitigate this risk.

Keywords: Exchange risk, Hedging, Forward contract, Options, Swap

Introduction

Ample evidence abounds to prove that Nigeria’s National currency (the Naira) has been passing through difficult period especially in the first half of this year - 2016. The Naira currency which was officially pinned to an exchange rate of N192 to one US Dollar is depreciated so drastically that as at June it exchanges for N350 and above to the Dollar. Experts have attributed this development to the crash of crude oil price which inadvertently...
reduced the country’s foreign exchange earnings. Following this, government being the principal supplier of foreign exchange finds it difficult to fulfill this obligation and so a number of measures aimed at reducing demand for foreign exchange were put in place. These measures among others include banning the importation of certain goods into the country, refraining from making foreign exchange allocations to some major players (notably Bureau de change), putting increased emphasis on the much orchestrated need for diversification of the economy and lately, the re introduction of the flexible exchange rate regimes.

In spite of these moves the Naira currency continuous to provide grounds for enormous negative media headlines as the competitive exchange rate maintained an above N300 level thereby impacting significantly and rapidly on both domestic and international transactions. While on one hand importers complain of acute shortage of foreign currency, which makes it difficult and exorbitant for them to import, on the other the largely underdeveloped domestic sector grapples with the problems of take-up, epileptic power supply, insecurity, unreliable business atmosphere and unstable government policy. Further, the increased pressure coming from government quarters aimed towards economic diversification, self sufficiency and self reliance, all appear to have fundamentally compounded the situation leaving the national economy prone to excessive and persistent inflationary trends.

The success of the re-introduced flexible exchange rate policy equally relies on effective management of trends in the market which is expected to come through periodic intervention. What this implies is that the government would still play the role of tailoring the market towards ‘a shadow exchange rate’ alongside a competitive rate that exists in the market. Under this dispensation, economic agents, notably importers, exporters and Nigerian consumers would be left to face the full wrath of market forces; which given other macroeconomic policies, will reduce pressure on the Naira.

The argument in this study is that while this exchange regime reigns, there is need for end-users of foreign exchange to fine tune avenues for independent defense that would hedge them against exchange rate escalation. Hence there is need for the economy as a whole to move towards adopting a double edge mechanism for managing foreign exchange pressure as is done in most market oriented economies. In the context of this policy, the formal decision on the type of exchange rate system to be followed and its management still resides with the authority while other economic agents, both profit and none profit making, should assume a pro-active role through careful focus and analysis of exchange rate situation to safeguard against unforeseen negative consequences that can impact on businesses profitability and cash flow.

This strategy has for long been practiced by large business sectors in, especially developed countries, which more often than not placed them at advantage in minimizing foreign exchange risk. In developing countries like Nigeria however, a predominant part of the business class may not have adequate knowledge/ access to such remedial measures due mainly to their types, sizes and general lack of awareness. This paper is thus intended to serve as a source of reference for all categories of foreign exchange users in Nigeria. Firstly, it provides an empirical understanding of the intricacies of Naira/Dollar exchange rate; and secondly, it creates awareness on the need for some form of ‘micro control’ of foreign exchange risk. The knowledge of the common techniques and instruments that can be used to mitigate foreign exchange risks is also highlighted. On the over all, the attendant consequences of both falling domestic exchange rate (depreciation) and rising domestic exchange rate (appreciation) were looked into and highlights made on how companies in Nigeria can benefit from the process.
Literature Review

Foreign Exchange Risk

Access to finance and its effective management are essential ingredients to success in all forms of organizations. However, this is threatened by a number of constraints. According to Olutunla (2001) poor financing and/or lack of its effective management is a great hindrance to acquiring material inputs and better technologies for production. Finance is related to foreign exchange because some organizations source their finances from foreign countries. In addition, most capital goods, raw materials and expertise are purchased from abroad. Thus, foreign traders would have to either convert a foreign currency for use locally (if sourced from a foreign body) or convert local currency to foreign one (to patronize foreign markets).

Clearly, converting one foreign currency to another necessitates the use of exchange rate defined as the price of a foreign currency in terms of a domestic one. According to Nwude (2012), Exchange rate is a key variable in the context of general economic policy formulation as it affects the performance of other macroeconomic variables in any economy. Its appreciation or depreciation in both the short and long run according to Mustapha and Fabumi (1990), Adetifa (2003), Ezezebor (2004), Agene (1991) and Levi (1990) depend on specific factors namely: (i) interest rate differentials (ii) speculation (iii) central bank intervention (iv) hot money (v) hedging (vi) demand and supply (vii) exchange controls and regulation, and (viii) political and general economic climates. These factors are not entirely government centered. For instance, activities of speculation and hedging can be carried out by both the government and end-users of foreign exchange. There is need therefore for both parties to be involved in the process. Accordingly, while government is saddled with the responsibility to adopt the most appropriate exchange rate policy for the economy as a whole, end-users of foreign exchange are expected to determine whether there is need to hedge and which hedging instrument is appropriate for minimizing theirindividual exchange risk.

According to Madura (1989) foreign exchange risk refers to the effect of unexpected exchange rate changes on the value of a firm. Papaioannou (2006) sees it as the possible direct loss (as a result of an unhedged exposure) or indirect loss in the firm’s cash flows, assets and liabilities, net profit and, in turn, its stock market value from an exchange rate movement downward or upward. For companies that sell their goods and services internationally and get paid in a foreign currency for example, foreign exchange risk is the likelihood that a downward change (depreciation) in exchange rates will result in the company receiving a lower amount of domestic currency than originally anticipated because the foreign client will be paying less than before of his own currency. With currency depreciation, importers will be paying more of the domestic currency than initially planned. On the other hand an upward change in exchange rates (appreciation) would mean that exporters will receive more in foreign currency and by extension the domestic one; while importers will be paying less of domestic currency to obtain same amount of the foreign currency. Generally, a Foreign exchange risk is a financial risk caused by an exposure to changes in the exchange rate between two currencies which could result in a loss. It is also called currency or exchange risk.

According to CPA (2009) foreign exchange risk can originate from any of the following:

- where there business imports or exports between 2 or more countries.
- where other costs, such as capital expenditure, are denominated in foreign currency
- where revenue from exports is received in foreign currency
- where incomes, such as royalties, interest, dividends etc, are received in foreign currency
- where the business’s loans are denominated (and therefore payable) in foreign currency
where the business has offshore assets such as operations, subsidiaries or foreign currency deposits

Shapiro (1996); Madura (1989) and Papaioannou (2006), identified three different types of exchange risks namely:

1. Transaction risk. This is basically cash flow risk dealing with the effect of exchange rate movement on transactional account exposure related to receivables (export contracts), payables (import contracts) or repatriation of dividends. An exchange rate change in the currency of denomination of any such contract will result in a direct transaction exchange rate risk to the firm;

2. Translation/Accounting risk. This is a balance sheet exchange rate risk which relates exchange rate movements to the valuation of a foreign subsidiary and, in turn, to the consolidation of a foreign subsidiary to the parent company’s balance sheet.

3. Economic risk. This reflects on the risk to the firm’s present value of future operating cash flows from exchange rate movements. In essence, economic risk concerns the effect of exchange rate changes on revenues (domestic sales and exports) and operating expenses (cost of domestic inputs and imports). Economic risk is usually applied to the present value of future cash flow operations of a firm’s parent company and foreign subsidiaries.

It is pertinent to point out that exchange risk, notwithstanding the type, can impact adversely on business profitability and cash flow. According to CPA (2009) exchange risk effects can be highlighted into two major categories as follows:

1. Declining domestic exchange rate which can result to;
   a. Making domestically produced goods more competitive against imported goods
   b. Increasing the cost of capital expenditure where such capitals are imported
   c. Increases the cost of servicing foreign currency debt
   d. Increases exporters’ competitiveness in terms of cost, thereby potentially increasing their market share and profitability.
   e. Domestic business could become more attractive to foreign investors
   f. Increases the cost of investing overseas and thus makes it unattractive.

2. Rising domestic exchange rate. This can lead to;
   a. Making exports less competitive, thus reducing the profitability of exporters
   b. Decreasing dividends, which in turn can lead to a fall in the market value of the business
   c. Decreasing the value of investment in foreign subsidiaries and monetary assets (when translating the value of such assets into the domestic currency)
   d. decrease in the value of foreign currency income from investments, such as foreign currency dividends, when translated into the domestic currency
   e. Decrease in the cost of foreign inputs, thus giving importers a competitive advantage over domestic producers
   f. Decrease in the value of foreign currency liabilities. Hence lowering the cost of servicing these liabilities decreases
   g. Decrease in the cost of imported capital equipment thereby lowering capital expenditure
   h. Decrease in the cost of investing overseas thereby encouraging capital flights
   i. Makes the economy less attractive to foreign investors

**Foreign Exchange Risk Management**

**Rationales for Managing Foreign Exchange Risk**

Managing foreign exchange risk is a technical subject requiring knowledge of hedging instruments and techniques. For most users of foreign exchange this may seem too
complex, costly or time-consuming. Others yet may not have broad knowledge about hedging instruments and techniques or may simply believe that hedging is a mere speculative activity. Export Development Canada (2010), identified the following as the main importance of exchange risk management to business organizations:

j. minimizing the adverse effects of exchange rate movements on profit margins
k. increasing the predictability of future cash flows
l. eliminating the need to accurately forecast the future direction of exchange rates
m. facilitate the pricing of products sold on export markets and;

n. offers temporary protection to business competitiveness in the event of a rise in the value of local currencies (thereby buying time for businesses to improve productivity).

The adoption of a foreign exchange management strategy is similar to taking on an insurance policy in which the insurance company accepts to indemnify the insured against any unexpected eventuality (risk) that may affect the insured assets. The insured risk, in this case, is the reduction in cash flows and/or profit margins caused by unfavourable changes in the exchange rate. Export Development Canada (EDC) further asserts that effective exchange risk management does not only protect a company’s cash flow but also ensure that the company’s efforts and talent are focused on its core business activities.

According to Allen (2003); and Jacque (1996), effective currency risk management decision would require the establishment of an operational framework of best practices. It is thus a multi-step process. EDC (2010), IMF 2006 and Habibnia (2013) identified five stages as follows:

i. Determining/calculating company Exposure
   This involves identifying and measuring the foreign exchange exposures that you want to manage. As mentioned earlier, the focus for most companies is on transaction risk. For an exporting company paid in U.S. dollars for example, measuring exposure may involve subtracting the U.S. dollars it expects to receive over a one year period, against the money it will need in order to make payments in U.S. dollars over the same period. The difference determines the exposure to be hedged. If the company already has U.S. dollars in the bank, this should also be subtracted to determine the net exposure. In doing this both confirmed and forecasted transactions over the designated time period should be included.

ii. Development of an exchange rate risk management strategy.
   After identifying the types of currency risk and measuring the firm’s risk exposure, a currency strategy needs to be established on how to deal with these risks. In particular, this strategy should specify the firm’s currency hedging objectives and whether and why the firm should fully or partially hedge its currency exposures. Furthermore, it is imperative that a firm details the overall currency risk management strategy on the operational level, including the execution process of currency hedging, the hedging instruments to be used, and the monitoring procedures of currency hedges.

iii. Creation of an entity to deal with the execution of exchange rate hedging.
    This entity will be responsible for exchange rate forecasting, the hedging approach mechanisms, the accounting procedures regarding currency risk, costs of currency hedging, and the establishment of benchmarks for measuring the performance of currency hedging. (These operations may be undertaken by a specialized team headed by the treasurer or, for large multinational firms, by a chief dealer).

    This includes setting position limits for each hedging instrument, position monitoring through mark-to-market valuations of all currency positions on a daily
basis (or intraday), and the establishment of currency hedging benchmarks for periodic monitoring of hedging performance (usually monthly).

v. Establishment of a risk oversight committee.
This committee would in particular approve limits on position taking, examine the appropriateness of hedging instruments and review the risk management policy on a regular basis.

Common Techniques and Instruments
According to EDC (2010); CPA (2009); Papaioannou (2006); and Florena-Olivia (undated), there are two broad methods that can be used to manage foreign exchange risks.

Natural hedging
The objective of natural hedging is to reduce the difference between receipts and payments in a given foreign currency so that ultimately, the net amount to be received would have been minimized. Natural hedging can be by way of using foreign currency proceeds to make payment abroad, borrowing from abroad, increasing procurements from foreign suppliers, and building or buying a production facility abroad.

An inherent disadvantage of natural hedging however is, it takes time to implement. (e.g. finding new suppliers in another country, initiating and securing credit facility or building a production facility abroad may after all be cumbersome).

Financial hedging
This method involves buying foreign exchange hedging instruments that are typically sold by banks and foreign exchange brokers. The ones most commonly used are foreign exchange forward contracts, currency options and swaps.

Forward contracts
This allows a foreign exchange user to set the exchange rate at which he will buy or sell a given quantity of foreign currency in the future (on either a fixed date or during a fixed period of time). They are flexible instruments that can easily match future transaction exposures (generally up to one year).

Forward contracts are easy to use and carry no purchase price – which makes them very popular. The only obligation being that the exporter has a contractual commitment to deliver to (or purchase from) a bank or foreign exchange broker a fixed quantity of foreign exchange at a future date. If he does not, then the forward contract could be terminated or extended which could carry a price tag. This last point explains why foreign exchange brokers set limits on the maximum amount that can be hedged using forward contracts. It also serves to explain why collateral is often required when you buy a forward contract.

Currency options
Standard options give a foreign exchange user the right, but not the obligation, to buy or sell foreign exchange in the future at a pre-determined exchange rate. Because these options do not oblige the company to sell or buy foreign currency (contrary to forward contracts), they are often used by companies that bid on contracts. Currency options allow companies to benefit from favourable movements in exchange rates, which is why most types of currency options carry an upfront cost.

The perceived complexity of currency options and the fact that most of them carry a purchase price has restricted their application. Yet basic options are not difficult to
understand and some of them, commonly called “Zero-Cost Collars” or “Participating Forwards”, cost nothing to purchase. In addition, they provide protection when exchange rate moves in an unfavorable direction and participation when it moves in a favorable one. Also, options can lead to an increase in market share and improvement in business margins.

**Swaps**

This involves the simultaneous selling and buying (or buying and selling) of a foreign currency. Swaps are simply a combination of a “spot” transaction (purchase or sale of foreign currency for delivery within 24–48 hours) and a forward contract. There are no direct costs associated with the purchase of swaps (some collateral may need to be posted). Swaps are extensively used by companies around the world for cash management purposes and to borrow in foreign currencies.

Generally, the argument on the appropriate strategy to manage (hedge) the different types of exchange rate risk is yet to be settled (Jacque, 1996). In practice, however, corporate treasurers have used various currency risk management strategies depending, ceteris paribus, on the prevalence of a certain type of risk and the size of the firm (Allen, 2003).

**Methodology**

The study utilized secondary data on Naira/Dollar exchange rate based on the operations of parallel markets (Bureau de change) in Nigeria over a period of 18 months (January 2015 – June 2016). As pointed out earlier, the primary concern is to educate end users of foreign exchange on the inherent risk associated with dealing in foreign exchange and to further equip them with the skills of hedging against such risk. Thus, the study needs as simple tool as possible for maximum understanding. Also supportive of such tools is the nature of the data itself which is in time series form requiring simple trend analysis.

Following the above argument the study utilized descriptive tools such as tables, percentage, and polygons to clearly portray the monthly changing trends and how it affects Nigerian importers and exporters. The ultimate focus of the study is to assess the extent of exchange rate volatility between the two currencies and whether the resultant variations warrant the adoption of hedging techniques by Nigerian business enterprises.

**Results and Discussion**

**Trends in the Naira/Dollar Exchange Rate Fluctuations**

Global exchange rate regimes have become increasingly more volatile and less predictable than they were four decades ago when majority of countries practiced fixed exchange rate systems. The situation today is such that even in countries with fixed exchange rate systems the autonomous/parallel component of the market predominate the official market.

Thus, the data utilized in this paper is on the operations of the autonomous foreign exchange market in Nigeria; which although unofficial appears to have an edge over the official arm. Table1 below show Naira/Dollar exchange rates obtained from this market for the 18 months period covered by this study.

<table>
<thead>
<tr>
<th>Month</th>
<th>Xrate</th>
<th>%Δ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>19</td>
<td>7.9</td>
</tr>
<tr>
<td>Feb</td>
<td>213</td>
<td>4.5</td>
</tr>
<tr>
<td>Mar</td>
<td>233</td>
<td>-5.8</td>
</tr>
<tr>
<td>Apr</td>
<td>219</td>
<td>-4.0</td>
</tr>
<tr>
<td>May</td>
<td>224</td>
<td>-7.7</td>
</tr>
<tr>
<td>Jun</td>
<td>211</td>
<td>-2.7</td>
</tr>
<tr>
<td>Jul</td>
<td>220</td>
<td>1.0</td>
</tr>
<tr>
<td>Aug</td>
<td>217</td>
<td>3.3</td>
</tr>
<tr>
<td>Sep</td>
<td>223</td>
<td>10.0</td>
</tr>
<tr>
<td>Oct</td>
<td>225</td>
<td>10.9</td>
</tr>
<tr>
<td>Nov</td>
<td>232</td>
<td>12.3</td>
</tr>
<tr>
<td>Dec</td>
<td>258</td>
<td>-2.8</td>
</tr>
<tr>
<td>Jan</td>
<td>290</td>
<td>0.0</td>
</tr>
<tr>
<td>Feb</td>
<td>330</td>
<td>4.8</td>
</tr>
<tr>
<td>Mar</td>
<td>321</td>
<td>3.6</td>
</tr>
<tr>
<td>Apr</td>
<td>321</td>
<td>3.6</td>
</tr>
<tr>
<td>May</td>
<td>33</td>
<td>3.6</td>
</tr>
<tr>
<td>Jun</td>
<td>35</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Source: CBN, 2016.
The first column of table 1 presents the raw data (Naira/dollar exchange rate) as obtained from the CBN source. The second column shows the percentage change between successive months over the one year six months period. It can be observed that fluctuation was a recurrent feature of the exchange rate throughout the period. It is revealed that the Naira currency is disfavoured in 11 of the 17 variations witnessed (constituting 59%), all of which are above 3 percentage point. On the other hand, of the 4 variations (24%) in which the Naira currency was favoured, only 2 were above 3 percentage point. This clearly shows the predominance of adverse volatility trends which can significantly affect business profitability and cash flow. This outcome is made clearer in the polygonas presented in Figure.

![Figure 1: Naira/Dollar Exchange Rate over 18 Months Period](image)

The steady rise of the polygon into the mid 2016 is indicative of the continuous negative trends(depreciation) in the Naira/dollar exchange rate. From an all low exchange rate of less than N200 to a Dollar in January 2015, the rate escalated to N350 per Dollar in June 2016. This is a clear manifestation of the relative disadvantage of the Naira currency over the Dollar. This fact is further simplified in Figure 2 where the net percentage changes were used. The zero line benchmark in the figure demarcates between depreciation and appreciation. Observe that the Naira has been depreciated too many times since August 2015.
Measurement of Foreign Exchange Risk

The data presented in the previous section is utilized in Table 2 to compute the risk of exposure to foreign exchange risk and to analyze how it can affect importers and exporters.

Table 2: Exchange Rate Fluctuation and its Effects on Imports and Exports - Jan. 2015 to Jun. 2016

<table>
<thead>
<tr>
<th>Month</th>
<th>EXR(Nominal)</th>
<th>EXR (Ratio)</th>
<th>Net Changes</th>
<th>Import Effect</th>
<th>Export Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>196</td>
<td>0.0051</td>
<td>-</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>February</td>
<td>213</td>
<td>0.0047</td>
<td>0.00040721</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>March</td>
<td>223</td>
<td>0.0045</td>
<td>0.00021053</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>April</td>
<td>211</td>
<td>0.0047</td>
<td>-0.00025503</td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>May</td>
<td>220</td>
<td>0.0045</td>
<td>0.00193881</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>June</td>
<td>219</td>
<td>0.0046</td>
<td>-0.00002075</td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>July</td>
<td>237</td>
<td>0.0042</td>
<td>0.00034680</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>August</td>
<td>217</td>
<td>0.0046</td>
<td>-0.00038889</td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>September</td>
<td>223</td>
<td>0.0045</td>
<td>0.00012399</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>October</td>
<td>225</td>
<td>0.0044</td>
<td>0.00003986</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>November</td>
<td>232</td>
<td>0.0043</td>
<td>0.00013410</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>December</td>
<td>258</td>
<td>0.0039</td>
<td>0.00043438</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>January</td>
<td>290</td>
<td>0.0034</td>
<td>0.00042769</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>February</td>
<td>330</td>
<td>0.0030</td>
<td>-0.00041797</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>March</td>
<td>321</td>
<td>0.0031</td>
<td>-0.00008496</td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>April</td>
<td>321</td>
<td>0.0031</td>
<td>0.00000000</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>May</td>
<td>337</td>
<td>0.0030</td>
<td>0.00014791</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>June</td>
<td>350</td>
<td>0.0026</td>
<td>0.00038022</td>
<td>Negative</td>
<td>Positive</td>
</tr>
</tbody>
</table>

Computed by Author, 2016
It is clear from the table that the two parties are affected differently following different fluctuation trends over the periods. The table shows how rising and falling currency value can affect profitability and cash flow for both importers and exporters.

To make the above point clearer, we assume that a Nigerian exporter sold Cocoa to a U.S. based buyer, for say US$100,000 in the month of March 2015. If, as shown the table, the USD/Naira exchange rate during this period was 0.0045 and that this rate was used for the transaction, the exporter would have expected to receive N22,222,222. Assume further that the US$100,000 was only received one month later (in April) when the Naira is worth 0.0047 USD/N (which is equivalent to a 5.8% increase in the value of the Naira). This would mean that the exporter could receive only N21,276,595 implying a reduction of N945,627 than expected. In this circumstance the company must have suffered a loss of nearly a million naira, which is avoidable if it had adopted a hedging strategy.

A second scenario is where a Nigerian based firm initiated a transaction with a US based supplier to buy automobiles worth USD100,000. This, it is assumed, was in November 2015 when as shown in Table 2, the Naira/Dollar exchange rate was 0.0043. Assume further that the transaction was actually completed in March 2016 when the exchange rate has appreciated to 0.0031. This means the Nigerian firm must have paid N322,258,064, which is higher than N23,255,813, being what it would have paid if the transaction was finalized in the month of November. The net loss to the firm of N9,002,251 was due to naira depreciation over the period which could have been avoided if the firm had a hedging strategy in place.

It is pertinent to point out that both depreciation and appreciation have distinct economic advantages and disadvantages depending on economic exigency and need (refer to the effects of rising and falling domestic currency value in the literature section). Thus, while importers would prefer currency appreciation as it tends to reduce their Dollar requirement for purchase abroad, exporters would be more comfortable with depreciation since it increases the total Naira quantity received in the event of a transaction. To the government both may be desirable depending on the country’s economic policy and situation.

The above analysis has revealed that both importers and exporters can suffer a monetary lose following volatility in currency exchange rate irrespective of the effectiveness of government exchange rate policy. This necessitates that users of foreign exchange should be vigilant to ensure that unwarranted exposure to risk is detected and remedied.

**Application of Hedging Instruments**

**Non Financial Tools**

The application of non financial tool is somewhat rather simple as explained in the literature. Using this tool the cocoa exporter in the above example could reduce his exposure through any of the following:

i. If he has commitment to make payment to foreign suppliers during that time of say US $30,000, he can reduce his forecasted exposure by that amount to US$70,000.

ii. The exporter could also further reduce his exposure through borrowing from a US based credit agency. Assuming he borrowed US$50,000, this would reduce the exposure to US$20,000.

iii. A third alternative is to buy or build a production facility in the US for the whole amount or a part thereof.

Through selective and/or mixed application of natural hedges as explained above, the exporter could either partially or wholly eliminate his forecasted exposure and hence maximize profitability and cash flow.
Financial Tool

Tools commonly used under this alternative include forward contracts, currency options and swaps.

Forward contracts

This is particularly more reliable when the company is hedging transaction risk requiring definite and quick cash payment. If for instance the cocoa exporter above expects to have a foreign exchange exposure where it receives US$50,000 more than it needs to pay over the next one month, it can enter into a forward contract to sell the surplus, at a predetermined exchange rate. Similarly, if he expects less foreign currency than he needs he can also enter into a forward contract to buy the deficit. By entering into these forward contracts, the cocoa exporter will have eliminated all or most of the transaction exposure he faces.

Currency options

Currency options are more suitable than forward contract where the calculated exposure is prone to high degree of uncertainty. Generally, options tend to have greater flexibility as it creates room for both protection and participation. Consider the example of a company that has purchased an option giving it the right to sell U.S. dollars at an exchange rate of 0.0047USD/Naira six months from now. If, at maturity, the exchange rate is 0.0045USD/Naira, the company won’t exercise its right to sell its U.S. dollars at the agreed 0.0047USD/Naira because the current rate is higher. If however, the current exchange rate is 0.0051USD/Naira (which is lower), then the company will exercise its right to sell U.S. dollars at the contracted rate of 0.0047USD/Naira (which is higher).

Swaps

This tool is preferred if the exporter wants to have access to Naira equivalent of the foreign currency for immediate use. For example, if the exporter is receiving US$100,000 payment today for which he has no immediate use, but he knows that he will have to make a payment of same amount in 45 days, he could enter into a swap arrangement to sell the US$100,000 today (in exchange for Naira) and commit to purchase the same amount of U.S. dollars in 45 days at an exchange rate that is pre-determined. The advantage of this is that it allows the exporter to have access to Naira equivalent of US$100,000 for the next 45 days and at the same time eliminates foreign exchange exposure during this period. However, the exporter now has a contractual commitment to purchase U.S. dollars in 45 days and will need to pay for these with Naira at that time.

Conclusion and Recommendation

One of the attributes of an ideal currency anywhere in the world is that it should allow for complete freedom of monetary flows, so that traders and investors could willingly and easily move funds from one country/currency to another in response to perceived economic opportunities. An irony however is that this does not happen in reality.

In spite of this constraint there is increasing evidence to show that in response to emerging socio-economic realities, more and more businesses in Nigeria and other third world countries are increasingly pursuing overseas business opportunities. This form of trade, unlike internal, involves foreign currency which necessitates the use of exchange rate. Thus, although it is the statutory responsibility of government to provide a well managed foreign exchange atmosphere, the other parties involved in such transactions should equally be concerned with how such cross currency dealings may inhibit their profitability and smooth
cash flow. This implies that the responsibility to put a favourable exchange rate in place is a joint one, between the State and the business interest.

This paper has utilized practical evidence to prove that exchange risk is indeed a practical reality and that Nigerian traders dealing in trans-border activities can use hedging tools to safeguard against the unforeseen adverse affects of exchange risk on inputs costs, outputs price, credit sources, and overall asset value.

We conclude by asserting that the desire for firms and individuals to hedge is deterministic. It is determined by the interaction of a number of concurrent activities within the immediate business environment, the foreign exchange market and the economy at large. Therefore stakeholders must carefully assess when to hedge and using what strategy for achieving maximum business success and sustainability.
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Habibnia, A. (2013): Exchange Rate Risk Measurement and Management, LSE RiskStochastic Group. a.habibnia@ise.ac.uk
THE IMPACT OF HIV/AIDS POLICY ON SOCIO-STATUS CONDITION OF PEOPLE LIVING WITH HIV/AIDS IN ZARIA LOCAL GOVERNMENT

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ABSTRACT  
The study explored the impact of HIV policy on socio-economic status of People Living With HIV (PLWH) in Kaduna state. The study used a sample 400 respondents, 320 respondents from Kafanchan General Hospital (KGH) and 80 respondents from National Tuberculosis and Leprosy Training Center (NTBLTC), Saye, Zaria. Self administered questionnaire was used to collect data directly from the respondents both at KGH and NTBLTC respectively. The data were analyzed using both descriptive and inferential statistical techniques. The result of the descriptive statistics was presented in the form of frequency distribution table and the inferential statistics was conducted using chi-square test. The main findings can be summarized as follows: 1) Government policy on accessibility to free ART drugs has no significant impact on mortality rates of People Living with HIV. 2) Government policy on accessibility to credit/government support has no significant impact on People Living with HIV. Third, level of education has significant impact on the HIV status of People Living with HIV. These findings provides the following insights for future research: 1) There is the need for government policy to target the affected People Living with HIV by given more treatment particularly at the remote areas to ensure easy access and availability of ART drugs to People Living with HIV. 2) There is the need to intensify awareness campaign on government policy on financial support for People Living with HIV by broadcasting in local languages for the benefit of illiterates among the People Living with HIV.

Key Words: HIV/AIDS. Policy. Socio-Economics.

INTRODUCTION  
Since its discovery in the early 1980s, HIV/AIDS has become a pandemic on a global scale. It is no longer only health issue but a substantial threat to socio-economic development, imposing a heavy burden first on families, then on communities and eventually economies. The impact of the pandemic is felt in most countries of the world, an estimate of 11 persons is said to be infected every minute representing 15,000 new infections every day or more than 5.4 million for the year (WHO, 2000). Similarly, the Joint United Nations Programme on HIV/AIDS (UNAIDS) estimated that in 2003, about 38 million people were HIV positive worldwide and almost 26 million were workers between 15 and 49 years, and out of 2.9 million HIV/AIDS related deaths in 2003, 2.2 million were from Sub-Saharan Africa with Sub-Saharan Africa carrying the large burden of 2.2 million dearth. While the Sub-Saharan African region contain only 10 percent of the world’s population, it accounts for 60 percent
of the worldwide HIV/AIDS cases (UNAIDS Africa Fact Sheet, 2004). This implies that the most productive age group is affected and has implications on socio-economic status of people living with HIV/AIDS.

In Nigeria, the first case of HIV/AIDS was reported in 1986 and has continued to increase and continue to spread across the general population. The country’s epidemic is generalized with wide variation prevalence across the country. The national HIV prevalence has steadily increased with little inconsistencies, from 1.8% in 1991, to 5.8% in 2001. However, between 2001 and 2013, the prevalence slightly decreased to about 4.0%. Even though, the figure has averaged 4.0% annually since 2005 to 2013, Nigeria’s prevalence is one of the highest in the world if compared to the reported cases and world’s region prevalence that has averaged 1% (Nwanguma, 2005; GARPR, 2012). In 2007, Nigeria was ranked third globally in terms of actual number of people living with HIV/AIDS after India and South Africa. However, in 2009, Nigeria has overtaking India and is currently the second prevalence country after South Africa.

In Kaduna State, it is unclear when the first case of AIDS was reported (Kaduna State Aids Control Agency, 2015). However, with an HIV sero-prevalence rate of 7.0% in 2008, Kaduna State has the highest HIV infection rate in the North West Zone. The HIV epidemic trend in the state has been unstable: following a period of exponential growth where the epidemic rose from a prevalence rate of 0.9% in 1991 to 11.6% in 1999. However, there was a dipping to 5.6% in 2005 with a subsequent reversal to 7.0%. There are also wide variations in the magnitude of the epidemic across the State, but generally, the Southern towns have higher rates than the Northern ones with some rural sites having higher rates than some urban locations.

The Kaduna State has an estimated 423,000 people infected and currently living with HIV. Of these, 120,000 require treatment. Over the past few years, there has been an increase in outlets for comprehensive ART services; hence access to treatment of HIV-related conditions has improved. An estimated 50% (about 60,000) of the PLWHAs that need treatment are still not accessing it. Drugs are free and OI drugs are widely available and all centers providing ART services also provide CPT, courtesy of implementing partners. Pediatric ART services are available in 2 sites. Efforts at integrating TB/HIV/AIDS services are on-going. A focal person for TB/HIV/AIDS integration has been appointed at the State level and TB/HIV working groups established in 21 of the 23 LGAs; however, only 5 of the ART sites currently provide TB services. The key issues and challenges with treatment services are the continuing inequity in distribution of service delivery points, complete dependence on development partners that threatens sustainability, death of health worker skills, poor coordination of treatment efforts and weak HMIS. Therefore, study tends to examine the impact of HIV/AIDS policy on the socio-economic condition of people living with HIV/AIDS in Kaduna State with respect to their level of income, consumption expenditure, and savings.

LITERATURE REVIEW

AN OVERVIEW OF HIV STATUS IN KADUNA STATE

Socio-Economic Status

Socioeconomic status is often measured as a combination of education, income and occupation. It is commonly conceptualized as the social standing or class of an individual or group. When viewed through a social class lens, privilege, power and control are emphasized. Furthermore, an examination of socio-economic status as a gradient or continuous variable
reveals inequities in access to and distribution of resources (American Psychological Association, 2016).

HIV/AIDS

HIV stands for Human Immunodeficiency Virus. It is a virus that causes AIDS. The acronyms AIDS, stands for Acquired Immune Deficiency Syndrome. When a person is infected with this virus, his or her body fluids such as; blood, semen and vaginal secretions will contain the virus. The virus stays in the body and slowly destroys the body’s defence mechanisms. The duration of time it takes for a person infected to fall ill varies and takes between several months to seven years. Therefore an infected person can spread the virus unknowingly (Akisolu, 2004). When the HIV destroyed the body immune system, the symptom of AIDS begins to manifest. At this stage of full-blown AIDS, the body’s natural defense system is weakened and the infected person becomes vulnerable and is at the mercy of all kind of infection such as; persistent cough, skin infections and unexplained weight loss (Shaffer, 1994).

World Health Organization (WHO) identified three main routes of HIV transmission among the general population. The first one is through sexual transmission. All forms of sexual intercourse may result in the transmission and constitutes the single most important HIV transmission route. Exposure to blood mainly through transfusion and needles sharing is the second most common route of transmission. Although blood-to-blood exposure can lead to infection, the available record to date does not show this group represents a valid proxy for the general population. The prenatal or substantial vertical (Mother to child) transmission constitutes the third major routes of HIV transmission. Pregnant women do transmit HIV to their babies during pregnancy or birth and also through breast milk (WHO, 1992). Despite considerable investment and research, there is currently no HIV/AIDS vaccine, and microbicides (designed to prevent HIV being passed on during sex) are still undergoing trials. However, there are other ways that people can protect themselves from HIV infection which are the basis of HIV prevention efforts around the world. Education about HIV and how it is spread is an essential part of HIV prevention. HIV education needs to be culturally appropriate and can take place in various settings, for example, at school, media campaigns, or peer education (UNAIDS, 2011).

HIV/AIDS Epidemic in Kaduna State

The Federal Ministry of Health (FMOH) biennial HIV sentinel sero-prevalence survey showed that between 1991 and 1999, Kaduna State experienced an exponential growth in its HIV epidemic, with the HIV prevalence rate rising from 0.9% to 11.7%. However, as a result of massive intervention, the HIV prevalence in the state has been declined; but it is still high around 5% (KADSACA, 2010) as shown in figure 1.1.

Figure 1.1: Trends in HIV/AIDS Prevalence in Kaduna State
Similarly, within the state, wide variations exist in the magnitude and trend of the epidemic. Generally, the northern cities of Zaria and Kaduna record lower rates than the southern towns, with rural areas having higher rates than urban areas. While the prevalence is going down in some places, in others, like Kafanchan that has a current rate of 17.7%, the rate has increased significantly between 2005 and 2008 (KADSACA, 2010) as shown in table 1.1.

### Table 1: Trend in HIV Sero-prevalence rate by site in Kaduna State

<table>
<thead>
<tr>
<th>Year</th>
<th>Statewide</th>
<th>Zaria</th>
<th>Kaduna</th>
<th>Saminaka</th>
<th>Kafanchan</th>
<th>Kwoi</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>6.0</td>
<td>2.1</td>
<td>6.0</td>
<td>-</td>
<td>9.7</td>
<td>6.0</td>
</tr>
<tr>
<td>2005</td>
<td>5.7</td>
<td>1.0</td>
<td>7.0</td>
<td>10.0</td>
<td>7.0</td>
<td>4.6</td>
</tr>
<tr>
<td>2008</td>
<td>7.0</td>
<td>3.4</td>
<td>2.3</td>
<td>2.0</td>
<td>17.7</td>
<td>7.3</td>
</tr>
</tbody>
</table>

Sources: KADSACA, 2010

### Kaduna State Response to HIV/AIDS

Similar to the national response, the Kaduna State has passed through three main stages in its response to the HIV/AIDS epidemic: the stage of denial, the stage of a health sector-led response and the state of a multi-sectoral response.

Following the announcement of the first case, and for a number of years, there was a general denial of the existence of the epidemic across the country. Even when the then Minister of Health directed States to set up structures for an HIV/AIDS response and commit funds, the response by all levels of government was lukewarm.

The first Kaduna State response to HIV/AIDS was to appoint a State AIDS Program Coordinator within the State Ministry of Health to provide leadership for the state response, essentially within the medical paradigm and constitutes a State AIDS Committee, under the Ministry of Health. However, there were no State funds allocated for HIV/AIDS work, so the Committee remained essentially dormant. While Kaduna State AIDS Committee had been in place since 1990, it was not very effective until 2000 when the State Action Committee on AIDS (SACA) was established. It was in that year, that for the first time, Kaduna State government allocated N50 million for HIV/AIDS control activities.
The State Action Committee on AIDS was established, in line with the National Action Committee on AIDS directive to shift from a health sector response to a multi-sectoral response under one coordinating body. This was also in compliance with one of the recommendations of NACA for accessing the World Bank credit facilities. Following the formation of KADSACA, government began to make funds available to the organization for the implementation of its annual work plan with the main objective of reducing the spread of HIV, providing care and support to those infected and affected by the disease and mitigating its impact in Kaduna State. By 2002, the KADSACA began to draw on an IDA loan of the World Bank for the implementation of her work plans and to also draw from the national HIV and AIDS Emergency Action Plan (HEAP) to guide her multi-sectoral response to the epidemic. The HEAP focused on interventions aimed at achieving two overarching strategic objectives: creation of an enabling environment for interventions through challenging and confronting socio-cultural and informational barriers and the development of specific HIV and AIDS interventions to prevent, control and mitigate the impact of the epidemic in Nigeria. The HEAP spanned the period 2000 to 2003, during which period specific HIV intervention programs – ART, PMTCT, OVC, VCT were established, religious and traditional leaders sensitized and CSOs/FBOs’ capacities built for HIV/AIDS communication-related interventions in the State.

Following the expiration of HEAP, but in line with national strategic directions, the State decided to consolidate its gains by conducting a State Response Analysis that informed the development of a State Strategic Plan. The National Strategic Framework was used for the development of the SSP, which was subsequently costed. It was expected to cover the years 2006 -2010. The SSP had eight priority areas which include; effective coordination, resource mobilization and capacity building; prevention of new infections and Universal Precaution; expansion of equitable access to ART, and reduction of laboratory monitoring costs; provision of psychosocial support and economic empowerment of OVC, widows, PLWHAs and PABA; impact mitigation, care and support of OVC; strengthening monitoring and Evaluation; promoting research and new technologies; and creation of an enabling environment.

The development of the SSP was done in a very participatory manner with all the key stakeholders participating. Implementation, which began in 2007, coincided with a significant infusion of new development partners contributing to the State response; these notably included GHAIN, CRS, ICAP and PEPFAR. This has resulted in significant expansion of specific HIV/AIDS related interventions, mainly in the areas of treatment, care and support. Unfortunately the period witnessed a decline in State government funding for AIDS-related interventions and support to the CSOs. While KADSACA, the Kaduna State AIDS Control Agency, one of the key actions from the SSP was established, lack of funding support to Agency and line Ministries involved in the response has slowed the pace of implementation of the strategic interventions and actions. However, the SSP has formed the basis of the development of joint annualized valued operational plan by stakeholders.

The midterm review (2009) has coincided with the end of implementation of the NSF at the Federal level. To align the timing of the next strategic plan nationwide and to generate state level plans that will be harmonized into a national plan at the Federal level, States have been mandated by NACA to generate State level SSPs for the period 2010 to 2015 using an NSF that has articulated national objectives and interventions. For each intervention, States are to identify specific actions they plan to undertake to contribute to the attainment of the nationally set objectives.

**The Case for Cost-Effectiveness Analysis of Contextual HIV/AIDS Interventions**

The cost-effectiveness analysis in health care is defined as a systematic inventory of costs and health outcomes of alternative ways of responding to a health problem (Drummond
et al., 2005; Josue, 2013). Cost-effectiveness analysis of health care interventions has been underpinned by a number of arguments that relate mainly to uncertainty around costs, health outcomes of various interventions, and the importance of cost-effectiveness (CE) evidence for efficiency-related policy making (Muennig, 2008; Josue, 2013). In the HIV/AIDS sector, these arguments were also at centre stage of cost-effectiveness analysis of HIV/AIDS interventions although cost-effectiveness analysis focused on alternatives HIV/AIDS interventions, each with a different set of activities and not on contextual HIV/AIDS interventions.

Arguing the case for cost-effectiveness analysis of contextual HIV/AIDS interventions requires showing that arguments which substantiate the cost-effectiveness analysis of HIV/AIDS interventions apply to contextual HIV/AIDS interventions. Uncertainty around the costs and health outcomes of alternative HIV/AIDS interventions, and the importance of related cost effectiveness evidence to policy makers, are two main arguments which motivated cost-effectiveness analysis of such interventions. In making the case for the cost-effectiveness analysis of contextual HIV/AIDS interventions, arguments which supported cost-effectiveness analysis of HIV/AIDS interventions need to be valid also for the cost-effectiveness analysis of contextual HIV/AIDS interventions. In other words, to defend the case for cost-effectiveness analysis of contextual HIV/AIDS interventions, it must be shown that without such analysis, policy makers will remain uncertain about how cost-effectiveness of contextual HIV/AIDS interventions compare and will miss out on the important cost effectiveness evidence needed for efficiency-related policy-making. The case is defended starting with the uncertainty argument.

The Uncertainty Argument

The uncertainty argument has been used to justify cost-effective analysis of HIV/AIDS interventions because the activity of an HIV/AIDS intervention can result in more than one health outcome. In most case, each outcome resulting from an HIV/AIDS intervention procedure, determines the next set of activities of that intervention, making different HIV/AIDS interventions most likely to result in different health outcomes and costs. The uncertainty surrounding the costs and health outcomes are confusing for policy makers having to choose between competing interventions, therefore making cost-effective analysis necessary. Cost-effective analysis was particularly useful in estimating the average costs and health outcomes (expected values) of each alternative, providing policy makers with certain costs and health outcomes on which to base their decisions. For this argument to hold for cost-effectiveness analysis of contextual HIV/AIDS interventions, it must be shown that without cost-effectiveness analysis of contextual HIV/AIDS interventions, policy makers will face uncertainty about the costs and HIV outcomes of contextual HIV/AIDS interventions (Josue, 2013).

The Importance of the Analysis Argument

The importance of the cost-effectiveness analysis has been judged with respect to the extent to which the analysis contributed to the current evidence and then with respect to the benefit of such evidence in terms of policy implications. Generally the importance of cost-effectiveness analysis of HIV/AIDS interventions is judged on the basis of its contribution to the evidence and on the basis of the extent to which it results in policy making that resolves a problem of significant magnitude. Therefore, for the case for the cost-effectiveness analysis of contextual HIV/AIDS interventions to be made, it must be shown that without such analysis, crucial evidence would be missing and that policy makers would miss a basis from which to act in order to resolve a problem of a significant size (Josue, 2013).
Empirical Literature

Some of the earlier studies by other researches in this field include; Laah and Ayiwulu (2010) who analyzes the demographic and socio-economic characteristics of patients diagnosed with HIV/AIDS in Nasarawa Eggon Local Government of Nasarawa. The data for the study covering the sample period 1998 to 2006 were obtained from records of Nasarawa Eggon General Hospital. The data were analyzed using Statistical Package for Social Sciences (SPSS). A total of 340 people were diagnosed with HIV/AIDS during the study period. The findings of the study shows that; prevalence of HIV/AIDS varied significantly by age; that more females (51.5%) than males (48.5%) were infected and that majority were married (60.3%); that Muslims and Christians constituted 53.6% and 43.2% of those diagnosed with HIV/AIDS respectively; and that farmers (16.8%) were the most infected among males while for females, housewives were the most infected with 23.2%. therefore, the study recommends that there is the need to refocus the strategies of curbing with the prevalence rates among those in marital union.

Nwanna (2011), the examines the correlation between socio-economic status and discrimination among people living with HIV/AIDS (PLWHA)and non-infected people in two Local Government areas of Lagos State. The study used multistage sampling techniques to obtained a sample of 1,611 uninfected respondents and a purposive sampling techniques to obtain a sample of 80 people living with HIV/AIDS. Interviews and focus group discussions were conducted from September 2005 to April 2006. The data were analyzed using the Statistical Package for Social Sciences (SPSS) while hypotheses were tested by multivariate logistic regression analysis. The findings of the study are as follows: First, many uninfected respondents exhibited discriminatory attitudes in different situations involving potential contacts with the people living with HIV/AIDS. Second, significant proportions of people living with HIV/AIDS experienced rejection, abandonment, eviction, isolation and alienation within their families and communities. Third, education, place of residence, gender, and marital status were significant predictors of discrimination. Fourth, widowed/separated/divorced PLWHA suffered more discrimination than those in other categories of marital status. The study recommends that people living with HIV should be given empowerment, intensive mass HIV education and enforcement of national and international legal instruments.

Ogunmola, O.J. Oladosu, Y.O., and Olamoyegun, M.A. (2014). Examines the relationship between socio-economic status and HIV infection in a rural tertiary health center. The study was conducted at the HIV clinic of the Federal Medical Center of Ido Ekiti, Ekiti State using a sample of 237 respondents, 155 control group and 122 case group respectively. The data were collected using structured questionnaire and analyzed using SPSS version 16. The findings of the study are as follows: First, the age group 30–39 years has found to have the highest number of HIV-positive. Second, those with tertiary education were found more frequently among the HIV-negative, in contrast to the HIV-positive subjects who were more likely to have primary or secondary school education. Third, in contrast to HIV-negative subjects, HIV-positive subjects were found predominantly in the low-income category. The study therefore, suggests that urgent measures to improve HIV prevention among low-income earners are necessary.

Kusiima (2009) assesses the impact World Vision Masaka Kyanamukaaka Area Development Programme (World vision MKADP) HIV/AIDS care and support interventions on household welfare in Kyanamukaaka and Buwunga sub-counties, Masaka district, Uganda. The study used both qualitative and quantitative data. The qualitative data was collected using interview and focus group discussion while the quantitative data was collected using structure questionnaire. The result of the qualitative interview was analyzed and presented in qualitative form and the result of the quantitative interview was analyzed using Microsoft Excel and presented in figures and percentages. The findings of the study
shows that World vision MKADP interventions through agriculture project, psychosocial and education support has improved household welfare for people infected and affected by HIV and AIDS in Kyanamukaaka and Buwunga sub-counties. Therefore, the study made the following recommendations: First, World Vision should continue with the agriculture project support through provision of improved crop and animal breeds backed by trainings. Second, World Vision should continue with assessing the level of depression and where necessary provide psychosocial support before undertaking any developmental interventions. Finally, the World Vision should continue to give support to Orphans and Vulnerable Children to pursue skills training.

Taraphdar, et. al, (2011) assesses the socio-economic consequences of HIV/AIDS in the family system. The study was conducted on HIV/AIDS patients attending Calcutta School of Tropical Medicine, Kolkata. A total of 292 people living with HIV/AIDS (200 attending Integrated Counseling and Testing Centre and 92 admitted in the hospital). The data were collected using predesigned, pretested, and semi-structured questionnaire in English, and translated in Bengali/Hindi. The data were analyzed by using proportions, chi-square and Z-tests for proportions. The finding of the study are as follows: First, The proportion of patients who revealed loss of job, selling of family assets, decreased family income, increased expenditure, and absence from work was significantly higher in the indoor than in the newly diagnosed patient with HIV/AIDS. Second, sickness of the participants was the most common reason for decrease in family income in both groups of patients, followed by unemployment of patient and death of husband. Therefore, the study recommends; that intensive education for PLWHAs, their family members, and other stakeholders is urgently required for the reduction of AIDS-related stigma and discrimination; that more research to get a better insight into the problem of socio-economic impact at household and community levels, and for mainstreaming of PLWHAs is the need; and that services to support those affected as well as a legal framework to protect their rights is also important.

Gap Identified in the Literature

Almost all the literatures reviewed concentrates on examining the impact of HIV/AIDS on socio-economic status of people living with HIV without considering the effectiveness/impact of HIV policy on people living with HIV. Therefore, in order to fill this gap, the current study examined the impact of HIV/AIDS policy on socio-economic conditions of people living with HIV/AIDS in Kaduna State.

METHODOLOGY

Population of the Study

It is estimated 311,000 people are living with HIV/AIDS in Kaduna State (Faruk, 2014), the highest in the North-West region. Also, the 2010 technical report by the Federal Ministry of Health placed Kaduna State HIV prevalence at 5.1% on the average (FMOF, 2010). The high rate of HIV/AIDS in the state is attributed to cultural background, insufficient funds and inadequate equipment to challenge the menace.

Sampling and Sampling Techniques

In order to get access to people living with HIV/AIDS, two main hospitals in the Northern and Southern Kaduna were randomly selected. These hospital were; National Tuberculosis and Leprosy Training Center (NBTL), Saye, Zaria; and Kafanchan General Hospital (KGH). The total number of people living with HIV/AIDS receiving treatment at NBTL were approximately 2,500; and the total number of people receiving treatment at GHK were approximately 10,000.
Therefore, in order to determine the appropriate sample size, the study employed Yamani’s formula specified as:

\[ n = \frac{N}{1 + Ne^2} \]  

(1)

Where \( n \) = Sample size, \( N \) = Total population, and \( e \) = Level of significance

\( N_1 \) represent the total number of people living with HIV/AIDS at NBTLTC and \( N_2 \) represent the total number of people living with HIV/AIDS at KGS. Therefore, \( N = N_1 + N_2 \). Substituting \( N \) in equation 2, we get:

\[ n = \frac{N_1 + N_2}{1 + N_1 + N_2 e^2} \]  

(2)

\[ n = \frac{10,000 + 2500}{1 + 10,000 + 2,500(0.05)^2} \]  

(3)

\[ n \approx 400 \]  

(4)

Therefore, approximately 400 respondents were selected to represent the entire population. Similarly, the number of respondents required in each hospital was determined as follows:

\[ \text{KGH} = \frac{10,000}{12,500} \times 400 = 320 \]  

(5)

\[ \text{NBTLTC} = \frac{2,500}{12,500} \times 400 = 80 \]  

(6)

In order to select the respondents in two hospitals, a purposive sampling technique was used. A Purposive sampling techniques, also known as judgmental, selective or subjective sampling, reflects a sampling techniques that rely on the judgement of the researcher when selecting respondents to be studied.

**Method of Data Collection**

In order to collect the data from the people living with HIV/AIDS, the study used structured questionnaire and administered at both KGS and NBTLTC. The questionnaire was divided into two main sections; Section A was the demographic characteristics of people living with HIV/AIDS. Section two comprises questions related to HIV policy and socio-economic condition of people living with HIV/AIDS.

**Analytical Technique**

In order to analyze the result, the study employed both descriptive and inferential statistical techniques. The result of descriptive statistics was represented using frequency distribution table. Also, the result of the inferential statistics was analyzed using chi-square test.

**RESULT AND DISCUSSION OF FINDINGS**

In this section, we presented and discussed the findings of the study. The data were analyzed using SPSS version 16.0. A total of 400 questionnaires were administered both at Kafanchan General Hospital (KGS) and National Tuberculosis and Leprosy Training Center, Saye, Zaria. However, only 309 questionnaires were recovered and valid.
Demographic Characteristics of People living with HIV/AIDS in Kaduna State

The demographic characteristic of people living with HIV/AIDS (PLWH) in Kaduna State is presented in Table 1.1. The result shows that 76.7% of the PLWH participated in the study were females while only 22.7% were male. This implies that the proportion of female living with HIV/AIDS in Kaduna state is higher than their male counterpart. The age distribution of PLWH indicates that the age group 31-40 has the highest proportion with 38.8% followed by age group 21-30 with 27.5%. However, the age groups with the lowest proportion of PLWH are those that are less than 20 years and those that are above 50 years with 5.2% each. This implies that those that fall within the age group 21-40 years are the most vulnerable to HIV/AIDS and this has implication in the society because they are the labour force while the remaining age groups are the dependents. In terms of marital status, the result indicates that widowed has the highest proportion of PLWH with 33.3% followed by divorce with 32.4%. Married people have the lowest proportion of PLWH with only 26.5%. This implies that widowed and divorced are the most vulnerable to HIV/AIDS. In terms of the level of education, the result indicates that those acquired School/Grade II/Technical Education has the highest proportion of PLWH with 36.9% followed by those that acquired primary education with 23.9%. This implies that HIV/AIDS has significance implication on those with lower level of education because of their low level of exposure and preventive measures compare with those that acquired higher level of education.

Table 1.1: Demographic Characteristics of People Living with HIV/AIDS in Kaduna State

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>70</td>
<td>22.7</td>
</tr>
<tr>
<td>Female</td>
<td>237</td>
<td>76.7</td>
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<tr>
<td>No Response</td>
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<td>.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>309</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Age Group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;20</td>
<td>16</td>
<td>5.2</td>
</tr>
<tr>
<td>21-30</td>
<td>85</td>
<td>27.5</td>
</tr>
<tr>
<td>31-40</td>
<td>120</td>
<td>38.8</td>
</tr>
<tr>
<td>41-50</td>
<td>64</td>
<td>20.7</td>
</tr>
<tr>
<td>&gt;51</td>
<td>16</td>
<td>5.2</td>
</tr>
<tr>
<td>No Response</td>
<td>8</td>
<td>2.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>309</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>82</td>
<td>26.5</td>
</tr>
<tr>
<td>Divorce</td>
<td>100</td>
<td>32.4</td>
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<tr>
<td>Widowed</td>
<td>103</td>
<td>33.3</td>
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<tr>
<td>Single</td>
<td>24</td>
<td>7.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>309</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Educational Level

<table>
<thead>
<tr>
<th>Level</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No formal Education</td>
<td>23</td>
<td>7.4</td>
</tr>
<tr>
<td>Koranic Education</td>
<td>36</td>
<td>11.7</td>
</tr>
<tr>
<td>Primary Education</td>
<td>74</td>
<td>23.9</td>
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<tr>
<td>Secondary School/Grade II/Technical Education</td>
<td>114</td>
<td>36.9</td>
</tr>
<tr>
<td>Post Secondary School Education</td>
<td>32</td>
<td>10.4</td>
</tr>
<tr>
<td>Post Graduate Degree</td>
<td>12</td>
<td>3.9</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
<td>0.6</td>
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<tr>
<td>No Response</td>
<td>16</td>
<td>5.2</td>
</tr>
<tr>
<td>Total</td>
<td>309</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field survey, 2015

Impact of HIV Policy on Socio-Economic Status of People Living with HIV in Kaduna State

In order to assess the impact of HIV policy on socio-economic status of PLWH in Kaduna State, the study used chi-square test at 5% level of significance to test the impact of; free access to ART drugs on mortality rate of PLWH, access to credit facilities/government support on PLWH, and level of education on PLWH.

Impact of Free Access to ART Drugs and Mortality Rate of PLWH

Table 1.2 represents the chi-square test of the impact of free access to ART drugs on mortality rate of PLWH. The result was test at 5% level of significance under the null hypothesis ($H_0$) that free access to ART drug has no impact on mortality rate. The result shows that the probability value of the coefficient of Pearson Chi-square is 47.6% which is greater than 5%. Therefore, we could not reject $H_0$ and concludes that free access to ART drugs has no significant on mortality rate of PLWH in Kaduna State. This result may be attributed to the fact that many PLWH do not have free access to ART drugs; partly, due to their denial, low level of awareness and ignorance, and partly due to the non-availability of treatment centers, particularly in the remote areas.

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Prob. Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>3.512</td>
<td>4</td>
<td>0.476</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>3.959</td>
<td>4</td>
<td>0.412</td>
</tr>
<tr>
<td>Linear-by-Linear Assn</td>
<td>1.017</td>
<td>1</td>
<td>0.313</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>309</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Survey, 2015

Impact of Access to Credit Facilities/Government Support on PLWH

Table 1.3 represents the Chi-Square test of the impact of access to credit facilities/government support on PLWH. The result was tested at 5% level of significance under the null hypothesis ($H_0$) that PLWH do not access to credit facilities/government support.
support. The result shows that the probability value of the coefficient of Pearson Chi-square is 56.3 which is greater than 5%. Therefore, we could not reject $H_0$ and conclude that PLWH do not have access to credit facilities/government support in Kaduna state. This result is in conformity with the reality because the PLWH used to have Support Group at every treatment center that provides them with a forum where they can interact with one another, share ideas, and received financial support from the government monthly. This support helps them a lot in alleviating their suffering. However, the Support Group does no longer exist.

### Table 1.3: Chi-Square Test of the Impact of Access to Credit Facilities/Government Support on PLWH

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Prob. Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>4.851</td>
<td>6</td>
<td>0.563</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>8.335</td>
<td>6</td>
<td>0.215</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.224</td>
<td>1</td>
<td>0.269</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>309</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Field Survey, 2015*

### Impact of Level of Education on HIV Status of PLWH

Table 1.4 represents the Chi-Square test of the impact of level of education on HIV status of PLWH. The result was tested at 5% level of significance under the null hypothesis ($H_0$) that level of education has no significant impact on HIV status of PLWH. The result shows that the probability value of the coefficient of Pearson Chi-Square is 0.00% which is less than 5%. Therefore, we reject $H_0$ and conclude that level of education has significant impact on the HIV status of PLWH in Kaduna state. This result is not surprising because people that has secondary school education and below are more vulnerable to HIV compare to those that acquired higher level of education as shown in table 1.1. People that possess higher level of education are more cautious about HIV/AIDS, and are more aware of various preventive measures.

### Table 1.4: Chi-Square Test of the impact of Level of Education on HIV Status of PLWH

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Prob. Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>70.413</td>
<td>21</td>
<td>0.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>28.518</td>
<td>21</td>
<td>0.126</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.277</td>
<td>1</td>
<td>0.599</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>309</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Field Survey, 2015*

### Conclusion

The key conclusion that can be drawn from this study is that government policy on HIV/AIDS has no significant impact on socio-economic status of PLWH in Kaduna state. Therefore, in order to improve the socio-economic status of PLWH, the study recommends that; the government should provides more treatment centers, particularly at the remote areas, and ensure free access and availability of ART drugs to all PLWH; that the government should revive Support Group at all treatment centers, and provide PLWH with more financial support/credit facilities; that the government should intensify awareness campaign, particularly in local languages for the benefit of illiterates people in the society.
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Kusiima, A. (2009). The impact of HIV and AIDS care and support interventions on household welfare in Uganda: A case study of Kyanamukaaka and Bwungu sub-counties, Masaka district
IMPACT OF CRUDE OIL PRICE INSTABILITY ON THE GROSS DOMESTIC PRODUCT (GDP) OF NIGERIA

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ABSTRACT
The most crucial issue confronting the world economies today is the price of crude oil and its effect on the economic output. The focus of this research is primarily on the relationship between crude oil price fluctuation and the growth of Gross Domestic Product of Nigeria. Data were collected from secondary source and a multiple regression model was employed on some macroeconomic variables from 1990 through 2014. The results indicate that oil price fluctuation affect the gross domestic product of the country which in turn affect economic growth. However, based on the analysis, the study recommend that government should diversify the economy, so as to reduce over dependence on oil revenue as the major source of revenue generation. In a mono economy once the price of the product crash in the market, the income of a country will geometrically reduce because there is no other source to stabilize the economy.

Key words: Crude oil price, instability, fluctuation, GDP and Dutch disease.

1.0. Background To the Study
Oil is the major source of energy in Nigeria and the world in general. In recent time, the oil industry is doubtlessly the most significant sector of the Nigerian economy, in view of its vital role in shaping the economic and political destiny of the country. It is obvious that the major success in the country’s development efforts is attributed to the oil sector, by virtue of its role in the National economy as the largest source of foreign exchange earning petroleum prices has unarguably generated interest in the society. However the oil prices is being affected by a number of interacting determinants such as the possible development of an alternative source of energy, as well as changes in end-use technology.

Various approaches has been suggested for synthesizing these factors with a view to fixing an equitable price level for a given quantum of oil produce. Some of these approaches include the economics of privatizing and deregulating the Nigerian downstream oil sector, as well as the diversification of the productive base on the Nigerian economy. All these suggested approaches have agreed on a meaningful pricing strategy which will cut the price of crude oil at a level not much lower than the cost of providing long-term alternative sources of supply. Such price should however ensure an annual...
growth rate which would commensurate with the increases deflation rate of oil exploration and the increasing cost of finding new alternative source for energy. The essence of this pricing strategy is to achieve certain conservative oriented objectives that will recognizes the irreplaceable nature of oil and as such reduce its levels of excessive usage and demand with a view to prolong the life span of oil reserves.

Therefore, the impact of oil price instability on the GDP of Nigeria cannot be over emphasized oil (The Black Gold) source is the bed rock of the Nigerian economy. The oil sector became the most pervasive sector of the Nigerian economy in the 1970s, culminating in the boom era of 1973-1974, 1978-1980 and 2003-2005, and the most recent in 2014 recorded the great downfall which cause capital projects threatened and Nigerian states (31) struggling to pay salaries cover these year, there has been distortion in the price of oil price instability on the economic development of Nigeria. The oil price instability causes the government to look at other ways of generating revenue; of recent tax on private jets, luxuries cars and housing estates tax which the government were reluctant to venture. Thus, in order to fully grasp or embark these effects, the crude oil production, storage, market prices, quantities and exports contribution of oil to government revenue shall be discuss.

1.1 Statement of the Problem

Various problems have been attributed to the instability of oil prices which had invariably affected the Nigerian economy as a whole one of the predicament is the over dependency of oil to service other sectors of the Nigerian economy. From 1981-1985, oil export have contributed more than 90% total foreign earning (CBN, 1986). The government believed that as long as oil prices are high in the foreign market, it could not only afford to import large quantities of consumer goods and services, but that it could also borrow large amount of money from foreign source to finance certain development projects within the country, given the country’s credit ratings.

Nigeria has seen its oil earning “Evaporate” as crude oil price has continued a downward spiral from $100 a barrel in August 2014 to $64 in December 2014. As the decline continues the government was forced to reviewed the bench mark for the medium term expenditure framework from $78 to $73 and then again to $65 a barrel, with the price of crude falling bellows the budget bench mark again, the government may well have to undertake another reviewed once more. Daily trust exclusively reported last December that only Lagos can pay salaries with its internally generated revenue (IGR). The remaining 35 states generate only a fraction of funds they require to settle their wage bills monthly. The implication is that without Federal Funds, these states cannot afford to pay salaries of bloated bureaucracies, not to talk of executing projects. Recent data release by the Debt management Office (DMO) shows that states may not afford to service their domestic debts stock of N1.445 trillion, some of the states have raised alarm over the continuous fail in oil revenue, saying they may end up unable to pay salaries.

Most states has to take short term bank loan to settle wages whenever there were delays in the monthly disbursement by the Federation Accounts Allocation Committee (FAAC). A revenue advocate told daily trust that the dwindling oil prices have the economy has been diversified and can do without oil revenue. The fluctuation of oil prices in the world market, which affect the Nigerian economy. This is because the oil pricing is determined globally, (NNPC). Another problem related to the oil price instability is the fraudulent management of oil earnings by government officials where various illegal accounts where opened and embezzled. This is as a result of unstable political atmosphere, un-accountability and multiple accounting system agents of Nigerian national petroleum corporation (NNPC).
Oil crisis is one of the major problems over the years, which leads to a decline in the foreign exchange earning to the economy. The increasing spate of variations in oil prices remains a source of challenge to policy makers the world over. Since the major oil shock in 1973, there have been market fluctuation in the world price of oil.

This study therefore, serves as an insight into the effects of the fluctuating prices of crude oil in Nigeria and to suggest measures to addressing such problems.

1.2 Objective to the Study

The main objectives of this study is to critically examine the impact of crude oil price instability on the GDP of Nigeria. The specific objectives are to:

i. Identify the factors responsible for crude oil price distortion
ii. Examine the effects of oil price fluctuation on the GDP of Nigeria
iii. Identify the implication of falling oil prices on the Nigeria economy
iv. Reflecting the effects of Dutch disease
v. Examine the effect of mono-cultural system of Nigeria economy.

2.0 Research Methodology

This section presents the methodology employed in analyzing the impact of crude oil price instability on Growth Domestic Product of Nigeria. This chapter gives the design of the project work as well as methodology used in the collection and analysis of the data for easy understanding.

2.1 Model specification

A linear model is specified below:

\[ Y = b_0 + b_1X_1 + b_2X_2 + u \]

Here, the Gross Domestic Product (GDP) shall be used as the proxies for the level of economic activities. The following Regression equation was employed.

\[ GDP = b_0 + b_1CoilP + b_2CoilF + u \]

Where:

GDP = Gross Domestic Product
Coil P: Crude oil Price
Coil F: Crude oil price fluctuation

\[ u \] is Stochastic error term and 
\[ b_0, b_1, b_2 \] = Parameters

The research work makes use of the econometric approach in estimating the relationship between crude oil prices and the Nigeria economic growth. The dependent variable is Gross Domestic Product (GDP) while the independent variables are crude oil prices and fluctuation of crude oil prices. The Ordinary Least Squares (OLS) technique was employed in obtaining the numerical estimates of the coefficients in different equations using E views 8 package.

2.2 Diagnostic Tests: The study employs a battery of econometric tests to examine the reliability. Such include the unit root test and co-integration test.

2.4 Empirical Evidence

Following the methodology earlier presented this section. Presents research finding from analyses of the relationships between crude oil price instability and the Gross Domestic Product (GDP) of Nigeria.

2.5 Data Presentation and Analysis

This chapter present data on crude oil price, crude oil fluctuation and Gross Domestic product and analyzed them, using the techniques of multiple regression model. In view of this Gross Domestic Product (GDP) is considered asthe dependent variable while the crude oil prices and the crude oil fluctuation prices are treated as independent variables. The aim is to establish the nature of relationship between the dependent variable and the independent variable and to further determine the impact of the regression (independent variable) on the regression and (dependent variable).

3.1 Data Presentation

This section presents the data obtained on the variable of study these data which were obtained from secondary source are presented in the table 3.1.

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP</th>
<th>Crude Oil Price</th>
<th>Crude Oil Price Fluctuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>267550</td>
<td>337.7</td>
<td>178.97</td>
</tr>
<tr>
<td>1991</td>
<td>265379.1</td>
<td>347.15</td>
<td>184.52</td>
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<td>1992</td>
<td>271365.5</td>
<td>560.52</td>
<td>319.01</td>
</tr>
<tr>
<td>1993</td>
<td>274833.3</td>
<td>603.95</td>
<td>360.08</td>
</tr>
<tr>
<td>1994</td>
<td>275450.6</td>
<td>545.94</td>
<td>335.57</td>
</tr>
<tr>
<td>1995</td>
<td>281407.4</td>
<td>568.26</td>
<td>369.07</td>
</tr>
<tr>
<td>1996</td>
<td>293745.4</td>
<td>673.99</td>
<td>444.15</td>
</tr>
<tr>
<td>1997</td>
<td>302022.5</td>
<td>600.44</td>
<td>412.85</td>
</tr>
<tr>
<td>1998</td>
<td>310890.1</td>
<td>377.82</td>
<td>268.81</td>
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<td>1999</td>
<td>312163.5</td>
<td>2170.80</td>
<td>1616.51</td>
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<tr>
<td>2000</td>
<td>329178.7</td>
<td>3834.23</td>
<td>2818.24</td>
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<tr>
<td>2001</td>
<td>356994.3</td>
<td>3435.44</td>
<td>2588.05</td>
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<tr>
<td>2002</td>
<td>433203.5</td>
<td>3619.42</td>
<td>2946.83</td>
</tr>
<tr>
<td>2003</td>
<td>477533</td>
<td>4598.75</td>
<td>3635.02</td>
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<tr>
<td>2004</td>
<td>527576</td>
<td>6281.18</td>
<td>4812.68</td>
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<tr>
<td>2005</td>
<td>561931.4</td>
<td>7988.47</td>
<td>6685.47</td>
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<td>595821.6</td>
<td>9668.05</td>
<td>7847.65</td>
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<tr>
<td>2007</td>
<td>634251.1</td>
<td>11960.14</td>
<td>8687.30</td>
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<tr>
<td>2008</td>
<td>672202.6</td>
<td>18804.96</td>
<td>12473.90</td>
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<tr>
<td>Year</td>
<td>Crude Oil Price</td>
<td>GDP</td>
<td>Balance of Payments</td>
</tr>
<tr>
<td>------</td>
<td>----------------</td>
<td>-----</td>
<td>--------------------</td>
</tr>
<tr>
<td>2009</td>
<td>718977.3</td>
<td>11704.64</td>
<td>9103.44</td>
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<tr>
<td>2010</td>
<td>775525.7</td>
<td>13063.73</td>
<td>11658.07</td>
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<td>2011</td>
<td>834161.8</td>
<td>18989.70</td>
<td>13940.63</td>
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<td>2012</td>
<td>691380</td>
<td>20477.54</td>
<td>148546.65</td>
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<td>2013</td>
<td>782000</td>
<td>20197.7</td>
<td>15709.7</td>
</tr>
<tr>
<td>2014</td>
<td>1030310</td>
<td>22576.2</td>
<td>17548.76</td>
</tr>
</tbody>
</table>


### 3.1.1. Model Estimation

The data in table 4.1 were estimated on multiple regression model which is of the following form: \( Y = B_0 + B_1x_1 + B_2x_2 = u \) and the following results were obtained:

\[
Y = 281006 + 30.672x_1 - 1.435x_2
\]

### 3.2. Interpretation of results

The interpretation and discussion of this result is extracted from the regression in appendix 1.

The result of the analysis is therefore presented as follows:

- \( GDP = 281006 + 30.672\text{CrudeOil} - 1.435\text{CrudeOilF} \)
- \( S\text{ee} = (17701.54) (1.964044) (0.516279) \)
- \( R^2 = 0.93 \)
- Adjusted \( R^2 = 0.92 \)
- \( t_0.05 = 1.714 \)
- \( F_0.05 = 3.44 \)
- Probability = 0.0000 0.0000 0.0109
- Probability (F.Stat) = 0.000000
- Durbin-Watson stat. = 1.868542 approx. = 2
- Log likelihood = 310.0948
- Sum squared residual: = 8.69E +10
- Akaike Info Criterion = 25.048
- Schwarz criterion = 25.194

### 3.3 Discussion of findings

The study found out that Crude Oil Price has a positive relationship with Gross Domestic Product (GDP) of Nigeria. These findings are in consonance with the observation of Ali (1987). That the phenomenal growth in the Gross Domestic Product (GDP), all claim to be a result of the catalytic role played by Crude Oil in the economy. As Aluko and Ijere (1965) also examined the important role which Crude Oil serves as a major source of energy in the world and has become the bedrock of man’s progress and modernization. For the past three (3) decades, it has been a major source of revenue and foreign exchange earnings for the Nigerian economy. Schatz (1982) also asserted which is in consonance with the research finding based on the analysis of the share of Crude Oil production and its contribution to GDP which increased from 1% in 1962/1963 to about 45% employing approximately three thousand five hundred (3500) workers in the Crude Oil sector.
The study also revealed that fluctuation in Crude Oil price has a negative relationship with the GDP of Nigeria. According to Daily Trust (2015) published on Tuesday of January, that tougher times awaits Nigeria oil and gas industry in 2015 as uncertainties trails what is likely to be a closely fought Presidential election in February as well as concern over the non-passage of the PUB in addition to Oil Prices dwindling further. Oil Productions and price remains the cornerstone of the Nigerian economy. Now prices are falling and a sustained fall in Oil Price in 2015 portend profound challenges in the country.

Research finding has indicated that prices of Crude Oil has great impact on the GDP of Nigeria and the fluctuation of the price has a Negative and the relationship with the GDP of Nigeria and the study is in consonance with Ali (1987) That in its days of glory, Crude Oil Production reached a record of 2.3million barrels per day. It is therefore clear that the burden of Nigeria’s economic development was borne by the oil sector of the economy. To him, without the contribution of oil, neither the nation’s industrial, agricultural development would have been capable of being financed from the Orthodox sources.

The research findings have also indicated that continue dependence on Crude Oil is very grace. And that Nigeria must make private sector our engine of growth in order to generate more exportable goods and services because once the market price of Crude Oil slump the economy will be affected. These studies disagree with Schatzl(1982) which asserted that the desire for growth will be achieved through the Petroleum industry.

3.4 Evaluation of estimates
The estimated results were interpreted based on three (3) basic criteria:

i. Apriori expectation
ii. Statistical criteria
iii. Econometric criteria

3.4.1 A priori expectation
The Apriori expectation suggest that the parameter $B_1$ (Crude oil Price) should have a positive relationship with the dependent variable $Y$ (GDP); while the parameter $B_2$ (crude oil price fluctuation) should have a negative relationship with the dependent variable. Therefore, it is expected that crude oil price fluctuation should have a negative impact on the GDP of Nigeria.

From the estimated result, the constant ($C: 281005.7$), which is the intercept of the model is positive. The co-efficient of $X_1$ (30.67198) is also positive. Hence, there is a direct relationship between Gross Domestic Product (GDP) and crude oil price. On the other hand, the co-efficient of $X_2$ (1.435238) is negative, implying an inverse relationship between the GDP and Crude oil price fluctuation. The positive relationship therefore shows that as crude oil price increases, GDP also increases. The negative relationship implies that as crude oil fluctuate, GDP decreases. Hence, economic growth and development is retarded.

3.4.2 Statistical Criteria
The estimated result shows that at 5% level of significance, the $t$-statistic value of crude oil price is greater than the tabulated $t$-value, i.e. $(15.617 > 1.714)$.

This means that we reject the Null Hypothesis ($H_0$) and accept the alternate hypothesis ($H_1$) and conclude that crude oil price is statistically significant in explaining changes or increase in GDP of Nigeria. Similarly at 5% level of significance, the $t$-statistic value of the fluctuation in crude oil price is greater that the tabulated $t$-value, i.e. $(2.779>1.714)$. 
**Decision Rule:**

This means that, we reject the Null hypothesis \( (H_0) \) and accept the alternate hypothesis \( (H_1) \) and conclude that fluctuation in crude oil price is statistically significant to GDP. Since, the independent variable (crude oil price and crude oil price fluctuation) are both statistically significant at 5% level of significance, based on this, we therefore conclude that crude oil price instability has a negative impact on the GDP of Nigeria. Test of hypothesis (log like hood) is calculated under the assumption the result appear in positive form. From the estimated result log likelihood = -310.0948

**Decision Rule:**

We therefore reject the assumption that errors follow normal distribution and accept that no errors in the normal distribution as the result finds negative. Hypothesis Test (P-value) since the p-value is 0.0000 for crude oil price is less than 0.05 (see Appendix) we reject the null hypothesis \( (H_0) \) and accept the alternate hypothesis \( (H_1) \) and conclude that crude oil price has a significant contribution to right GDP of Nigeria. And also for crude oil price fluctuation the p-value is 0.0109 is less than 0.05 (see appendix).

**Decision Rule:**

We reject the Null Hypothesis \( (H_0) \) and accept alternate Hypothesis \( (H_1) \) and conclude that crude oil price fluctuation has a positive relationship and it is significant to the crude oil price for the GDP growth of Nigeria

**Decision Rule**

\[
\begin{align*}
H_0: b_1 &= 0 \\
H_1: b_1 &\neq 0
\end{align*}
\]

From the estimated result; standard error of CoilF = 0.516. We reject the null hypothesis \( (H_0) \) and accept alternate hypothesis \( (H_1) \) and conclude that both variable are significant in explaining the variation in Y.

**3.4.3. Econometric criteria**

The co-efficient of multiple determination \( (R^2) \), shows the goodness of fit of the regression.

From the estimated result, the co-efficient of multiple determination is 0.93 implying that 93% of the total variation in the dependent variable (GDP) is explained by changes in the independent variable (Crude oil price and crude oil price fluctuation) while the remaining 7% are attributable to the other factors not captures by this model (unexplained variable).

**F-Statistic**

The F-Statistics is used at 5% level of significance and n-k degree of freedom, with the aim of testing the overall significance of regression model. \( F_{0.05}(2.22) = 3.44 \) since \( F^{*} > F_{0.05} (142.078 > 3.44) \).

**Decision Rule:**

We reject the null hypothesis \( (H_0) \) and accept the alternate hypothesis \( (H_1) \) and conclude that the overall multiple regression is statistically significant, implying that crude oil price instability has a negative impact on the GDP of Nigeria.
Hypothesis test (Durbin-Watson)

Durbin-Watson statistics test whether there is any evidence of serial correlation between residuals. As a rule of thumb the value smaller than two (2) will be an evidence of positive correlation. Hayashi (2000). From the estimated result the Durbin-Watson = 1.869, appr. = 2 (see appendix 1).

Decision Rule:
We accept the null hypothesis (H₀) and reject the alternate hypothesis and conclude that there is no serial correlation.

Hypothesis Test (Prob. F-Statistics)
From the estimated result Prob. (F-Statistics) = 0.00000 is less than 0.05 significance level. (Prob.F-Stat <0.05).

Decision Rule
We reject the null hypothesis (H₀) and accept the alternate hypothesis (H₁) and conclude that the overall multiple regression is statistically significant.

Akaike info criterion and Schwarz criterion
They are both use for model selection. Generally when comparing two variables models, smaller values of one of these criteria will indicate a better model.

4.0 Summary, Conclusion and Recommendations

4.1 Summary
The study was carried out to examine the impact of crude oil price fluctuations on the GDP of Nigeria. Data were collected from secondary source (Websites, reports, Journals and publications). The data was analyzed using inferential statistics (Multiple Regression Analysis) to examine the relationship between crude oil price fluctuation and the Gross Domestic Product (GDP) of Nigeria.

The result shows that there is a positive relationship between crude oil price and the Gross Domestic Product (GDP). As crude oil price increase GDP also increased, while there is an inverse relationship between fluctuation in crude oil price and the GDP. As oil prices fluctuate, the GDP decreases. It shows that fluctuation in oil prices has a negative impact on the Gross Domestic product of Nigeria. The result also revealed that approximately 93% of the variation in Gross Domestic Product is attributed to price of crude oil and the fluctuation in crude oil prices.

4.2 Conclusion
Based on the analysis carried out it can be concluded that fluctuation of crude oil price has a negative impact on the Gross Domestic product (GDP) of Nigeria.

This is attributed to the fact that fluctuation of crude oil causes a decline in the Gross Domestic Product (GDP) of country, thereby retarding economic growth. Any increase in the price of crude oil, increase the GDP rate, ceteris paribus and any decrease or negative fluctuation in crude oil prices leads to a decrease in the GDP.

4.3 Recommendations
Based on the findings of this research work, it is inevitable to provide a set of policy recommendations:

i. To reduce the over-dependence on crude oil as the major source of revenue, there is need for diversification of the economy.
ii. A coherent and consistent energy policy should be implemented which will enhance energy development in the country.

iii. There is need for technological initiatives that will enhance or stimulate local production crude oil.

iv. The government should encourage more private company participation, so that better refineries can be built and the cost of refining crude oil will reduce.

v. Revenue generated from crude oil should be used adequately to create more industries for the creation of employment and encourage infant industries.
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THE IMPACT OF ETHNIC MILITANCY, INTERNAL TERRORISM, AND NIGERIA’S NATIONAL SECURITY

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Abstract  
The paper examines the impact of ethnic militancy, it is metamorphism to internal terrorism and how it affects Nigeria’s national security, not only that, how it assumes international out looks, with the bombings of the united nation office in Abuja. The primary and secondary sources of data will be used to evaluate the evolution of ethnic militant groups to the rise of a more violent Boko Haram. Primary sources of data include written documents such as government publications, letters, correspondence documentaries and newspapers. But largely, it depends on secondary sources of data such as books, journals, conference proceedings and internet sources. It will also explore why internal terrorism occurs in Nigeria and the factors which facilitate it. Moreover it will look into the Nigerian security environment and the counter-terrorism policies which the Nigerian government pursue to maintain national security from 1999 to 2015. The problem of internal terrorism and its implication for national security, analyze the implication of internal terrorism for Nigeria in the international community. The anomie theory, strain theory of deviance and the frustration aggression hypothesis theory would be used as the point of studies, is to say the paper explores relevant and suitable concepts and theories that explain violent activities, perpetrated and inspired by some variables in Nigeria. And, to further give detailed explanations on how conflict can be managed. However, the paper concluded that unemployment poverty and high rate of corruption in Nigeria has been identified as major cause of violence in the country.

Keywords: Boko Haram, Militancy, Terrorism, Nigeria National Security

Introduction  
In a multi-ethnic society, that cut across the six existing geopolitical regions not only that incorporated under a single political system, means bringing together the basic problem of ethnic conflict. This is to say that Nigeria as a country is characterized by an intense ethnic polarization and conflict. This is understandable from the submissions mad by various ethnic and regional groups to the Human Right violations investigations Commission (HRVIC) set up in June 1999 as the country returned to democratic politics after so many years of military
dictatorship. Complains of genocide, political, economic, social strangulation and marginalization of so many ethnic groups was made by their leading elite organizations.

Consequently in the time of insurgency and terrorism, the Nigerian state moves to articulate itself as a domain of security for the citizenry. The presidency, lawmakers and security agencies openly condemns terrorist attacks as illegitimate action used by non-state actors. Appropriately, the Nigerian governments, through the National Assembly (NASS) embarked on legislative pathways to criminalize terrorism via the economic and financial crimes commission (Establishment) Act in 2002. Never the less, the inchoate nature of counter terrorism provisions in the Act led to the exploration of a more comprehensive legal framework and in turn to the presentation of the prevention of the Terrorism Bill to the senate in 2006. After five years, the Terrorism Prevention Act of 2011, was passed by the Senate and House on June, 1, 2011 and on June 2, 2011 and finally signed into law on June 3, 2011 (Punch Newspaper, November 22, 2012).

The year 2009, the internal strife conflict or terrorism in Nigeria moved from ethnic militancy to suicide bombings a condition that has claimed over 3000 lives, which led to the declaration of state of emergency in five northern states and the sack of the defense minister, police chief and National security adviser (Olalekan, 2012). The unpopular national phenomenon of suicide bombings have suddenly become dominant in the country, with several attacks on the elected political leaders and traditional rulers in North-Eastern regions of Nigeria, the nation’s capital, Abuja, the commercial city of Kano in North western axis and formerly serene Plateau state in North-central region (Tony and Kolade, 2012).

With the bombings of the UN Building at Abuja on Friday, 26 August 2011, which killed about 21 and wounded 60 people the nature of internal terrorism in Nigeria has taken an international dimension. The international community aggrieved, as suicide bombing rocked the St. Therese’s Catholic Church, Madalla, Niger State on Christmas Day, Killing innocent worshipers (Olalekan, 2012). There were a lot of other bombings, of other several places-mosques, churches, public infrastructures and civilian gatherings in Kano, Kaduna, Okene and other local government councils in the northern parts of the country.

Nigeria ranked 2nd with 593 deaths in 2011 from terrorist killing on the African continent, second to only failed state of Somalia, and on the global level, Nigeria was placed 5th in the ranking of causalities (country report on terrorism, 2010). As earlier observed, terrorism is not a strange or a new thing; having experienced the activities of Maitatsine movement which become violent in the early 1980’s during the regime of the first democratically elected civilian government of Alhaji Shehu Shagari. The movement was actually a quasi-Muslim fringe group that preached Islamic doctrines that were contrary to the teachings of the Quran and Hadith. Mohammadu marwa Maitatsine, the leader of the sect, was from Marwa town in northern Cameroon, who migrated to Kano, Nigeria (Danjibo, 2012). The ideology of the Maitatsine sect was appealing to the poverty – stricken youths who sought an opportunity to confront the conservative traditional ruler ship and state governments. The directives by the federal government to the police force to crush the sect, which had large followership of unemployed youths, led to clashes with the police in Kano. By December 19, 1980; the sect took over strategic places in the city, including the Fagge mosque, some schools, a cinema house and the Sabon gari market. For about nine days, the police was unable to bring the sectarian riots under control. It took the Army two days to dislodge the sect; the leader of the sect was also killed. More than 1000 members of the sect were arrested and detained in the prison. The crisis lasted for 11 days, 4179 people died and hundreds of houses and shops were either touched or destroyed (Danjibo, 2012). This crisis, which has some element of religion, took a denominational dimension in Zaria Maiduguri, Yola, Bauchi and Gombe etc.
THE TWO QUESTIONS IN MIND
The two questions that this paper is always confronted with are:

(1) What are the threats of these ethnic militias and Boko Haram on Nigerian security system?
(2) What are the solutions to this internal terrorism posed by these ethnic militants and Boko Haram in Nigeria and the international community?

METHODOLOGY
Historical research method is used in writing out this paper. A critical examination of the dramatic evolution of ethnic militant to the rise of a more violent Boko Haram, was analyzed using findings from both primary and secondary sources. The primary sources include written documents such as government publications, letters, correspondence, documentaries and newspapers. Moreover, this paper depend solidly on secondary sources such as books, journals, conference proceedings and internet sources which are explored to enrich this it.

THEIR THREATS ON NIGERIA'S NATIONAL SECURITY.
Thus, national security becomes the subject of discussion in and through which terrorism is mediated as a threat which invariably make the state to create and implement national security policies. It is true to say that, not only international or global terrorism that threatens Nigeria’s Security, internal terrorism is equally perceived to threat directly the national security of Nigeria. That is to say, the threat requires the Nigerian government to protect the citizens, not only that to also defend the constitution and its national interest, including its interests and allies abroad.

Terrorism, as believed to be a systematic use of violence or the threat of violence, against governments or individuals to attain a socio-political objective, terrorism has been practiced throughout history and the world over. Terrorism is a long-standing political and religious strategy that has gained renewed international awareness following the devastating and unprecedented attacks in the United States (US) on the 11th September 2001 (9/11). Although, the event of the day have come to represent a turning point in international concern with the issue, the 9/11 attacks are not isolated events. Nor did these events reflect an unexpected new threat they were the representative reaffirmation of a tendency that have been apparent for several years. Where terror had previously been a painful accessory to anarchism, liberation wars counter-insurgency campaigns and the battle fields of the cold war, the events of that day took terrorism to a new, global level.

Historically, no terrorist group has ever emerged in a vacuum; there are dynamic contexts-political, social, economic, temporal, and spatial even religious that must be taken into account. Thus, a considerable amount of emphasis is placed on identifying the array of environmental conditions and grievances among members of the local population that facilitated opportunities for internal terrorism in Nigeria to master support and orchestrated acts of political violence. The government of Nigeria has struggle to deal effectively with these grievances and source of tension throughout the country and there is a pervasive belief particularly among Nigerians that the government continually fails to address critical needs of those who aspire for a better future. While resources are surely constrained, it is the inequitable distribution of those resources, and the widely acknowledge levels of corruption among elites, that detract from the government’s effectiveness. In turn, patronage and corruption fuels a general perception that government officials (to include law enforcement agents) cannot be trusted and this further undermines the government’s ability to influence the behvaiour of local community members in positive directions away from the lure of radical extremist ideologies like that of Book Haram. Internal Terrorism has a long history in
Nigeria. Both the southern and northern parts of the country have experienced acts of terrorism by some of the groups that posed the greatest challenge to Nigerian security between 1999 to date, including the Movement for the Emancipation of Niger Delta (MEND), Oodua People’s Congress (O.P.C), Bakassi Boys, Boko Haram and the Niger Delta Avengers, among others. These groups adopted various strategies which include arson, kidnapping, extra-judicial killings, looting, unlawful detentions, disappearances and at worst, suicide bombings. While some of these groups received considerable support from the local people, the fact is that their tactics sometimes constitute terrorism and pose special challenges to Nigerian military (Olaide, 2013).

Since the return to civil rule in 1999, Nigeria has been battling with series of violent agitations from various geopolitical zones in the country. These violent agitations which have taken terror dimensions have contributed to national security threat that is capable of disintegrating the country. Terrorist attacks have resulted in the killings of hundreds of people and wanton destructions of property that worth billions of naira through bombings.

The strategic implication of these terrorists’ acts on Nigeria’s national security is the major thrust of this paper. While literature abounds on the terms terrorism, national security, more research is needed to unravel the connection between terrorism and national security in Nigeria. Outright confrontation with police and military officers, violent attacks on the populace, pipeline vandalization, bombing of oil installation, armed resistance, against the agents of the Nigerian State and the transnational oil companies operating in the region, kidnappings and hostage taking have serious implication for Nigeria in international community. Since the activities of these terrorist groups especially from 1999 have not only constituted a major security threat to the nation, but has also make the country one of the most dangerous place to live in the world. For good understanding, the paper narrows mostly on the activities of Boko Haram and recently on the Niger Delta Avengers.

Ethno-religious violence has bedeviled Nigeria as a sovereign and independent country since its return to democracy in 1999. The Niger Delta Avengers and Boko Haram insurgency has continued to pose a serious threat to the country’s security system and corporate political entity (Zenn, 2014). Since the violence re-emergence of the Boko Haram in 2010 the attacks and suicide bombings carried out by the group was increasing beyond the national boundary. The sect also engages in kidnapping of foreigners, and the recent tactics of kidnapping women. The group kidnapped more than 250 school girls in Chibok town of Borno State. According to Anyadike (2014), the changing dynamic of the operations and tactics of the group confused many scholars and analysts. Of its initial campaign of violence targeting security personnel and their formations have now expanded to include civilians, nongovernmental targets and the entire Nigeria populace.

The major violence started in 2009 between the Boko Haram and Nigerian security forces. This violence has claimed the lives of more than 1000 people with over 700 killed in Borno State capital Maiduguri (Umar, 2012). This single show of nicknamed violence has exposed the weakness of Nigerian Security System by its inability to curb the crisis on time. Subsequently, the group carried out another attack, when it orchestrated a large prison break in Bauchi in 2010 which freed more than 700 inmates including the sect members. This prison break shows how capable the group is in undermining the security of the country and exposes its weakness to the international community (VOA, 2012). The sect claimed responsibility for police headquarters attacks that was believed to be the first suicide bombing in Nigeria in 2011. This attack shows how powerful the group is, its ability and strategy to attack such an important place (Blanchard, 2014). Equally on Friday, 26 August 2011, the same year, the group carried out another suicide attack on United Nations Headquarters in Abuja in which twenty people were killed and more than sixty were injured (Nossiter, 2011).

The attack drew the attention of the international community about the threats of the sect that is now beyond the national issue. “The Boko Haram attacks since 2011 have
featured improvised explosive devices (IEDS), car bombs, and periodical suicide bombing. The members of the group cause a lot of damages and unpleasant moments to the people by continuing burning and destroying the communities using arms and arsons (Blanchardx, 2014). This made the United States security department to designate Boko Haram and Ansaru as foreign terrorist organizations (FTO) in November, 2013. Subsequently, the United Nations Committee on al-Qaeda sanction blacklisted the group on 22 May 2014. The united listing entry describes Boko Haram as an affiliate of Al Qaeda and organization of Al-Qaeda in the Islamic Maghreb (AQIM) (Nicholas, 2014).

Furthermore, there were a lot of incidents that happened while soldiers are fighting the group that exposed the weaknesses of Nigerian security for tackling the menace of the group. These incidents are; on 14 May 2014, some of the battlefield soldiers fighting the group in Maiduguri attempted a mutiny by firing off their commanding officer. The soldiers had complained that the insurgents outgun them as a result of more sophisticated weapons used by the sect members. This problem shows endemic corruption within the Nigerian security system, where billions of Naira was allocated to defence ministry for the fight against terrorism, but the outcome has not yielded any achievement. In a related issue, a group of soldiers fighting the group in Maiduguri had refused to go to the battlefield until modern weapons are provided to them. The Nigerian Army officials are not ready to fight Boko Haram; a Nigerian soldier said, the soldiers fighting the insurgents have no sophisticated weapons and adequate arms and ammunitions which made it difficult to confront the insurgents (This day Newspaper, 2014).

The threats posed by the group recently are undermining the existence of Nigeria as one political entity. The group captured more local government in the affected states of Borno, Yobe, and Adamawa. And about 500 Nigerian soldiers and refugees flee Boko Haram to cameroun (Sahara Reporters, 2014). Moreover, the sect’s leader Shekau declares areas under the sect’s control as new caliphate that would be governed according to strict Islamic codes (Sahara Reporters, 2014). All these have exposed the weaknesses of Nigerian government to curb the problem of the group, despite the country being the giant of Africa. According to Onuoha (2014), also Boko Haram has become a threat to and also impacted regional security. These threats can be assess from at least four dimensions. Namely, the group expansion in the form of recruitment, training equipment and funding its target, the increase problems of border attacks, transnational implications of these attacks, as well as diminishing the potential of Nigeria as defector leader of west Africa. As rightly observed, the sect has reached beyond the national borders of Nigeria, expanding international network that enables it to recruit and train members from the country of Sahara- Sahel region. The united nation report was quoted to have linked Boko Haram with al-Qaeda in the land of Islamic Maghreb (AQIM) (Onuoha, 2014). The groups have a good connection with one another, and Boko Haram was influenced by the ideology and tactics of the (AQIM) (Nossiter, 2011). According to the report, many of the group members were trained in Sahel alongside (AQIM).This connection continues where a large number of Boko Haram members attended an (AQIM) training centre in Timbuktu Mali during the summer of 2011. These members later came back and became the influential figures of the sect. They also dispatched some other members to far away Somalia to join Al-Shabaab run training camp, where members were taught on how to construct and detonate improvised explosive devices, and how to carry out suicide bombing. Before the June 2011 suicide bombing, there was little attention to the connection between Boko Haram and other Jihadist groups in the African region. Also, the groups run an international network of recruitment, training and indoctrination camps in different countries Gao and kidal in Malia, Cameroun, Chad, Sudan and some cells in Central African Republic. This shows how the group is well connected with major African Jihadists, which are all allies of Al-Qaeda, and how dangerous the connection will be to the entire African countries The expanding of the cross-border attacks
by the group poses a serious threat to neighboring countries in the region, among which are Cameroun, Chad and Niger Republic. The threats of the group have transnational implications; the deteriorating nature of the violence affected economic, humanitarian and diplomatic stability of the affected countries (Country report on terrorism, 2010).

The Boko Haram insurgency has reduced the power and influential role of Nigeria as a defector leader of West Africa and the entire Africa, this violence posed a serious security threats that hinders the country to continue its influential role in peacekeeping operations in many countries. As a result of that, the Nigerian and U.S government’s long bilateral relation had gone bad when the later refused to render military hardware assistance to the former (Guitta, & Smicox, 2014). Government of United States would not work closely with Nigerian security forces as doing so would violate the 1997 “Leahy law” which prevents the U.S defence and state departments from providing assistance if there is credible information that (a foreign security force) has committed a gross violation of human right.

THEORETICAL FRAMEWORK
The Radicals conceptions of Conflicts
Karl Marx and Ralf Dahrendorf’s Perspectives and the Nigerian Experience

However, one of the most powerful socioeconomic explanations of social conflict is that of Karl Marx, who posited a class struggle between proletariat and bourgeoisie inherent in the capitalist-industrial society. This conception is powerful in being dynamic, instinctively convincing, and appearing to fit well with history. It is powerful in providing in one package a description, an explanation, and a prediction of contemporary problems, and a remedy. The historical events and trends notwithstanding, the sociological outlines of Marx’s approach have much value. His emphasis on conflict, on classes, on their relations to the state, and on social change was a powerful perspective that should not be discarded. The spirit, if not the substance, of his theory is worth developing. For Marx, the division between classes will widen and the condition of the exploited worker will deteriorate so badly that social structure collapses: the class struggle is transformed into a proletarian revolution. The workers' triumph will eliminate the basis of class division in property through public ownership of the means of production. With the basis of classes thus wiped away, a classless society will ensue (by definition), and since political power to protect the bourgeoisie against the workers is unnecessary, political authority and the state will wither away. Overall, according to Marx (cited in Rummel 1977) there are six basic elements of class conflict.

- Classes are authority relationships based on property ownership.
- A class defines groupings of individuals with shared life situations, thus interests.
- Classes are naturally antagonistic by virtue of their interests.
- Imminent within modern society is the growth of two antagonistic classes and their struggles, which eventually absorbs all social relations.
- Political organization and Power is an instrumentality of class struggle, and reigning ideas are its reflection.
- Structural change is a consequence of the class struggle.

Consequently in Nigeria for instance, there is a wide gap between the rich and the poor emanating from the contradiction that exist within Nigeria capitalist mode of production, distributions and services. Several time Nigerians have complained about dubious and exploitative activities of some investors such as the Oyinlola sue case against “MTN, a telecommunication service provider” serve as a reference point and the Nigeria Communication Commission (NCC) banned on MTN, Globacom, Airtel, Multilinks, Visafone, Inter cellular and others (The Tribune Nov., 16 2012; The Nation Nov., 13 2013), and other unethical and corrupt cases by some companies such as British Airways, Virgin Atlantic and Halliburton case (The Guardian Aug., 16 2011; The Punch Sept., 20 2012).
Concluding this section in view of Marxian’s postulations vis-à-vis Nigeria situation, however, one notable force that came with modernization is capitalism, and the main effect of this has been the wholesome destruction of communalism, collectivity, and the spirit of togetherness found in most Nigerian communities. Today, what we have in the place of those noble virtues are selfishness, individualism, parochialism, sectionalism and greed for material possession. Since corruption is a short cut, it is easier to get rich quickly through it, and most people prefer this avenue to the slow policy and insincerity of the government. Corruption has become an issue that leaders in Nigeria enjoy and celebrate which has further prompt the Nigerian youth to engage in act of violence and indiscipline in the Nigerian political system, the recent presidential pardon given to Diepreye (former governor of Bayelsa State guilty of money laundry in UK and decided to disguise himself and escape from UK prison) and others serve as point of reference. Conversely, however, the philosophy of Marx generated a lot of intellectual debate between and among scholars especially the prophesy that underline his thesis; much of it is polemical and political, but some writers have tried to avoid the historical or empirical errors Marx committed, to learn from changes since his time, and to apply the spirit of his sociology to contemporary industrial society. One of the best of these efforts is that Ralf Dahrendorf’s *Class and Class Conflict in Industrial Society* (1959). He sees Marx’s defining characteristic of class (as property ownership) as a special case of a more general authoritative relationship. Society grants the holders of social positions power to exercise coercive control over others. And property ownership, the legitimate right to coercively exclude others from one’s property, is such power. This control is a matter of authority, which Dahrendorf defines, according to Weber, as the probability that a command with specific content will be obeyed by certain people. Authority is associated with a role or position and differs from power, which Dahrendorf claims is individual. Authority is a matter of formal legitimacy backed by sanctions. It is a relation existing between people in imperatively coordinated groups, thus originating in social structure. Authority, however, is dichotomous; there is always an authoritative hierarchy on one side and those who are excluded on the other. Within any imperative group are those who are superordinate and those who are subordinate. There is an arrangement of social roles comprising expectations of domination or subjugation.

Those who assume opposing roles have structurally generated contradictory interests, to preserve or to change the status quo. Incumbents of authoritative roles benefit from the status-quo, which grants them their power. Those toward whom this authoritative power is exercised, and who suffer from it, however, are naturally opposed to this state of affairs. Superordinates and subordinates thus form separate quasi-groups of shared latent interests. On the surface, members of these groups and their behaviour may vary considerably, but they form a pool from which conflict groups can recruit members. With leadership, ideology, and the political freedom and social conditions of organization being present, latent interests become manifested through political organizations and conflict. Summarily, for Marx’s conceptions, it is people divided on the basis of differentiated property ownership and sources of income; for Dahrendorf, it is differential power, norms, and roles. Class struggle or conflict, the active opposition of classes, is of course the meant of class theories. The utilization and importance of political power in the struggle is also recognized. Moreover, the three theories equally recognize the importance of the superimposition of class interests in contributing to the intensity of the struggle. Marx puts this in terms of the generalization of separate factory-specific class conflicts, and the increasing homogenization of classes; Dahrendorf refers to the superimposition of role incumbents, such that the same people are generally in the same authoritative relationship across organizations (Nelson, 2013).
The Anomie Theory of Conflict and the Nigerian Experience

Anomie is a term meaning "without Law" to describe a lack of social norms or normlessness. It describes the breakdown of social bonds between an individual and their community ties, with fragmentation of social identity and rejection of self-regulatory values. It was popularized by French sociologist Emile Durkheim in his influential book Suicide (1897). Anomie occurs when there is discrepancy between common social goals and the legitimate means to attain those goals. Moreover, an individual suffering from anomie would strive to attain the common goals of a specific society yet would not be able to reach these goals legitimately because of the structural limitations in society. As a result the individual would exhibit deviant behaviour. In other words,

Anomie occurs as soon as there are no clear standards to guide behaviour in a specified area of social life. In these conditions, people feel complete loss and worried; a state of ‘normlessness’ sets in and the people begin to do whatever they like. Consequently, this situation described the failure of Nigerian government to conduct free and fair election, policy failure (such as Poverty Alleviation Programme, Scholarship Packages for students, low pay of government officials such as the Nigerian Police, Civil Servants and so on), tribalism, Nepotism, etc., and among others have triggers Nigerian youths to take up arms against the Federal Government of Nigeria. These aforementioned scenarios have breed prostitutions, arm-robbery, thuggery, hooliganism, kidnapping, these and among others have tend to legalized corrupt actions in the country. This state of affair has led the Nigerian Police to be inefficient and ineffective. Policemen are ill-equipped to function effectively and ill-remunerated to be able to resist attempts to corruption. The effect is that first transgressors are not apprehended either because the Police are bribed to look the other way or because there is no resources. However, the Nigerian Judiciary, which is touted as the hope of common man, has not lived up to its billing. The wheel of justice grinds slowly and with an unsure gait, which aggrieved parties find both frustrating and expensive. The breakdown of order insociety makes people call for extreme solutions such as “Bakassi Boys, Odua Peoples’ Congress, Egbesu Boys, Arewa Peoples’ Congress” (vigilantes) in Nigeria and military repression. But such solutions may only makethings worse by weakening the State and diverting attention from the need to improve basic institutions of governance, notably the police. At the long run some of these ethnic militias become a menace to the government such as the incessant armed-robbery cases in the West, oil pipeline destruction and kidnapping menace in the Niger Delta, child trafficking/kidnapping in East and the destruction of property and killing in the Northern part of Nigeria (The Nation Feb., 18; Oct., 18, 2012). Furthermore, despite lip service paid to stumping out violence successive governments in Nigeria have madelittle significant effort to ensure that government officials and members of the security forces implicated in violations of civil and political rights, including election-related violence, are held to account. While only small minorities of the human rights abuses that have been documented were directly carried out by federal government officials, the federal government’s failure to combat widespread impunity for abuses orchestrated by government and party officials at the state and local level has fostered the unabated continuation of those abuses. Throughout the country, there is an entrenched culture of impunity at all levels of Nigerian government which started under the military rule and has remained a source of the country’s worst human rights abuses since thereturn to civilian rule in 1999 till date. No one has been held to account for ordering or participating in those atrocities. The Nigerian police routinely torture criminal suspects without trial. The government’s rhetoric and acknowledgement of the problem does not translate to tangible actions to bring those responsible to account or prevent future abuses. More than 11,000 Nigerians were killed in hundreds of separate outbreaks of inter-communal and political violence during the Obasanjo administration in 1999-2003. Many of those deaths came about in large scale and apparently highly organized massacres along ethnic and religious lines. No
one has been held to account for their role in organizing or inciting those massacres. During the same period several high profile Nigerians were assassinated in attacks widely believed to be politically motivated, including Attorney General Bola Ige in December 2001 (Nelson, 2013). However, electoral violence in Nigeria is most often carried out by gangs (commonly called thugs) whose members are openly recruited, financed and sometimes armed by public officials. These gangs, comprised primarily of unemployed young men, who are mobilized to attack their sponsor’s rivals, intimidate members of the public, rig elections and protect their patrons from similar attacks. Often, sponsors of electoral violence take time and again to the same criminal gangs, violent campus-based “cults” and other sources to recruit agents of political violence. Those recruited are paid, often very little, and sometimes armed for the sole purpose of carrying out violent abuses on behalf of their political sponsors (The Punch April 20, 2011). Many individuals facing credible allegations of electoral violence and myriad forms of corruption have been rewarded with positions of influence and power by the government. Anambra State political Godfather Chris Uba during President Obasanjo administration remained a member of the PDP board of trustees. Chris Uba’s brother Andy received the presidency’s political support for his bid for the governorship of Anambra State despite his implication in corrupt activities and his campaign team’s open recruitment of cult gangs to intimidate electoral opponents during President Olusegun Obasanjo administration all these serve as a reference point.

Moreover, according to the Institute of Peace and Conflict Resolution (IPCR) and UNDP (2003 cited in Aniekwe & Kushie 2011) the most important common factor in the causes of conflict today is the phenomenon of political corruption. The concentration of resources in the state makes the possession of political power very lucrative and the competition for political positions very intense. As Richards Joseph observed Nigeria’s present and future depend upon a prior understanding of the nature, extent and persistence of a certain mode of political behavior; and of its social and economic ramifications (quoted in Aniekwe & Kushie, 2011). This mode of political behavior is the prebendal culture which sees politics as the clearing house for jobs, contract, and official plunder. In Joseph’s words: Democratic politics and prebendal politics are two sides of the same coin in Nigeria; each can be turned over to reveal the other … The system of prebendal politics enables divergent groups and constituencies to seek to accommodate their interest … The system is often wasteful, unproductive, and contributes to the increasing affluence of the relative few, paltry gains for a larger number, and misery for the great majority of people. Since it is a self-justifying system which grants legitimacy to a pattern of persistent conflict, and since its modus operandi is to politicize ethnic, religious and linguistic differences, it serves to make the Nigerian polity a simmering cauldron of un-resolvable tension over which a lid must regularly be clamped, and just as regularly removed (Joseph 1991 quoted in Aniekwe & Kushie, 2011)(Nelson, 2013).

Ted Robert Gurr Relative Deprivation Theory and Nigerian Experience

Ted Robert Gurr explains in Why Men Rebel (1970) that instead of an absolute standard of deprivation, a gap between expected and achieved welfare creates collective discontent. This theory also applies to individuals who find their own welfare to be inferior to that of others to whom they compare themselves. “Relative deprivation is the term… used to denote the tension that develops from a discrepancy between the “ought” and the “is” of collective value satisfaction, and that disposes men to violence.” This gap between an individual’s expected and achieved welfare results in collective discontent. However, the concept of relative deprivation dates back to ancient Greece. Aristotle articulated the idea that revolution is driven by a relative sense of feeling of inequality, rather than an absolute measure. According to Gurr (quoted in Aniekwe & Kushie 2011) “For Aristotle the principal cause of revolution is the aspiration for economic or political equality on the part of the common people who lack it, and the aspiration of oligarchs for greater inequality than they
have, that is, a discrepancy in both instances between what people have of political and economic goods relative to what they think is justly theirs.” According to Walter Garrison Runciman (1966 cit. Nelson, 2013) defines the prerequisite of “relative” deprivation as follows (where individual A feels deprived of object X): individual A does not have X; individual A wants to have X; individual A knows of other persons who have X; individual A believes obtaining X is realistic. For Ted Robert Gurr (quoted in Aniekwe and Kushie 2011) further asserted that: “The primary source of the human capacity for violence appears to be the frustration-aggression mechanism... the anger induced by frustration... is a motivating force that disposes men to aggression, irrespective of its instrumentalities.” However, Gurr was not the first in his field to propose a link between frustration and aggression. Dollard, Millard, et al. (cited in Aniekwe & Kushie 2011) were the first to propose the theory, postulating that frustration leads men to act aggressively. Looking at the rate of unemployment and corrupt activities in Nigeria, it can be deduced that the high rate of unemployment in the country is a function of leadership failure and there is significant relationship between unemployment and youth unrest in the country, consequently this notion can be link to the causes of Niger Delta militancy and the Boko Haram violent activities in Nigeria. That is Nigerian youth are frustrated due to insincerity of her government and the resultant effect is aggression and wicked act manifested as terrorism like the Northern Islamic Sect popularly called Boko Haram in the North and the kidnapping menace in the south-south (The Nation Nov., 14, 2012; The Punch Nov., 30, 2012).

Moreover, when a large group of highly educated individuals enter the work force and levels of unemployment are high, the individuals may feel over-qualified and disappointed relative to what they expected to gain from their education. Presumably individuals pursue higher education with the expectation that additional studies or training will help them find better jobs. As a result, well-educated individuals may feel greater discontent from unemployment than those who did not expect such grand employment opportunities. This socio-economic discontent, in turn, may result in political violence. Consequently, “Economic Globalization and Transnational Terrorism: A Pooled Time-Series Analysis,” by Quan Li & Drew Schaub (2004 cited in Nelson, 2013), asks whether economic globalization increases or decreases transnational terrorist incidents inside countries. Globalization may be tied closely to relative deprivation, in the sense that greater access to information about people in other countries increases awareness of one’s relative standing in the world. Li & Schaub hypothesized that increased globalization leads to greater levels of international terrorism because trade makes it easier for terrorists to carry out attacks across borders. Based on a sample of 112 countries from 1975 to 1997 findings showed that the economic development of a country and greater trade opening reduce the number of terror incidents inside the country. Their finding that economic development decreases the likelihood of terrorism is an interesting example of an economic indicator’s effect on terrorism. Corroborating the above view, S. Brock Blomberg & Gregory D. Hess (2008 cited in Nelson, 2013), provide a more nuanced empirical analysis of economic development as a determinant of terrorism: They find that economic development is positively correlated with transnational terrorism, particularly in high-income countries. However, in lower-income countries this trend reverses, and economic development is negatively related to transnational terrorism. The authors point to the importance of considering terrorist groups’ political motivations. They say “interestingly, radicalism, separatism, and other ideological motivations for terrorism that appear to be intrinsically noneconomic may actually stem from underlying economic conditions.” They make the case that economic factors are important in different ways for higher- and lower-income countries. This could be due to a phenomenon similar to relative deprivation theory, in which those of different economic brackets view changes in economic factors differently.

Consequently, the above position might have informed the belief in some quarters that the rise of Boko Haram and militancy in the Niger Delta cannot be separated from the chronic
poverty sweeping the country and the terrible economic conditions arising from years of neglects and deprivations on the part of the political class against the country. Additionally, statistics has shown that there is a wide gap between the North and other parts of Nigeria in terms of economic development, thus, the Northern states and core states in the Niger Delta rank low in all economic indices and this has prompted youths to engage in act of violence (Obah-Akpowoghaha, 2013).

The annual increase of unemployed and without corresponding industries to absolved the youths in Nigeria is largely responsible for the emergence of conflict groups such as the Boko Haram. Kidnapping and other social vices. It is very uncommon, if not totally impossible, for someone with a gainful employment to engage in irrational killing and willful destruction of national properties. Thus, groups like Boko Haram and Niger Delta militancy draw their mercenaries from the thousands of unemployed and illiterate youth in the society. Due to this prevailing low economic atmosphere groups like Boko Haram and Niger Delta militancy draw their foot soldiers mainly from the unemployed youths who have been pushed into a condition of poverty by the social and economic contradictions which exists within the capitalist mode of production and by extension deprive the workers their values, that is, a configuration that pass wealth to the few. The point to be tense out in the above observations, the insurgency of Boko Haram and the incessant oil pipeline/kidnapping activities in Niger Delta emerges not only because of the religious fanaticism of western ideals or the crisis of federalism as some literature have claimed but rather because of the prevailing socio-economic situation rocking the country.

This much has been confirmed by different statistics relating to the economic situation of the country. According to Subair, 2012 cit. in Adebiyi 2012) quoting the figures from the National Bureau of Statistics, submitted that: Poverty in Nigeria is rising with almost 98% individuals living less on $1 a day despite the strong growth of GDP…….the percentage of Nigerians living in absolute poverty those who can afford only the bare essentials of food, shelter and clothing ----rose to 60.9 per cent in 2010, compared with 54.7 per cent in 2004. Moreover under the Jonathan administration domestic and foreign debt have risen to unprecedented proportion such that as at March 2011, foreign debt rose to $5.23bn, March 2012 $5.91, 13% while domestic debt as at march 2011 rose to #5.07 trillion (see The Punch July 7, 2012) This depressing economic indicators with the preponderance of Nigerians living below the poverty line, is no doubt, a possible cause of social discontent and the type of violence being witnessed in the North arising from the sect (Boko Haram) and Niger Delta Militants in south-south part of the country. The northern states of the country have feared worse in all indices of economic development in the country. A survey carried out by the National Bureau of Statistics (NBS, 2012) showed that the North-East and North-West Geo-Political Zones are the poorest regions in Nigeria. It is instructive to observe that the stronghold of the Boko Haram sect is in the North-East and North-West Geo-Political Zones of the country. Thus, so far in this review, there is a relationship between socio-economic condition and violence in Nigeria. The connection between economic deprivation and tendency for violent acts affirmed the position of Robert T. Gurr, who credited for the theory of Relative Deprivation. Gurr has argued that a gap in the value expectation and value capability of a people, may lead to violence (Gurr, 1970). Thus, people who are socially and economically deprived without the basic necessities of life, would in no distance time, challenge their perceived exploiters in the system. Corroboration the argument above Adebiyi (2012), while citing the publications of the World Bank and United Nations further stressed the dreadful economic condition prevailing in Northern Nigeria. According to him, the three Geo-Political Zones in the North are trailing their Southern counterpart in terms of Human Development Index (HDI). “In terms of geographical distribution, the highest concentration of poverty, at close to 70 per cent of the population, is in the North-East, followed by the North-West and North-Central in approximately the same proportion of more than 60 per cent
of the population. The zone with the least proportion of poverty incidence isthe South-East at about 33 per cent, closely followed by the South-West at about 42 per cent, and South-South atabout 50 per cent.” The tendency for an average person in the North who is poor and unemployed to resort toviolence is very high, moreover, according to Farrell (2012 cited in Adebiyi 2012), using a UNESCO report ofMarch 2011, indicated that “GDP rates in the South of the country were double that of the North”, the maintheme of his observations accentuate the need of dissatisfied youths parading in the North. The reality today isthat a large proportion of Nigerians living in abject poverty reside in the Northern States. This situation isalittle quite different from those in the Niger Delta. The destruction of farm-land and the eco-system by multilateralcompanies without reconstruction and development in the past has cumulated to all sorts of youth social unrestand youths picking arms against the Nigerian Government. From the foregoing literature, without much ado, the poor socio-economic condition rocking the country is a precursor to conflicts and violence in Nigeria and the act of aggressiveness and wickedness demonstrated by various groups show the act of frustration arising from the system against the government which has misappropriate and mismanage the resources of the country. This is against social contract conception that the entirety of Nigerians swore to defend and uphold. However, in a study, “Kto Kogo?” Alan Krueger and David Laitin (2008 cit.in Nelson, 2013) expanded the literature on economic determinants of terrorism by examining both target countries and countries of origin for terrorist events. To describe terrorist attacks, they look at who, to whom, and where. Their results suggest that economic status is of little importance for terrorist national origins, but an important characteristic of terrorist targets. Targets are generally better off economically, while politician malrepression is a better determinant for the national origins of terrorism. “Those who are repressed politically tend to terrorize the rich, giving international terrorist events the feel of economic warfare […] the kto [who] is political; the kogo [to whom] economic.” These findings serve as a useful point of departure from which to examine the economics of target countries. Additionally, the research reminds us that different factors may determine who becomes a terrorist and where attacks are perpetrated.

What are the solutions?

It is with the believed that, for effective end to this insurgency, government must improve the quality of its security organizations in term of providing modern ballistics and weaponry so as to arm their operatives with sophisticated weapons that could enable them to matched Boko Haram superior arms possession. Also, to make proper arrangement for incentives to maintain the operatives fighting spirits. Then, dialogue and as well by improving the general conditions of the people, provide employment opportunities, reduce corruption and injustice, since some of these insurgents lay their justification to some bad effects of leadership prevailing in the society. There is also the need for government to arrest and bring to justice all those perceived to be their sponsors, as these could increase commitment and dedication on the part of security personnel, particularly those engaged on the actual war fronts. On the part of security, the strategy such as effective Community Policing and intelligence gathering could reduce the level at which Boko Haram coordinators penetrate and link up with their networks in unleashing attacks.

Moreover, a general believe is that a coalition of international forces could help in addressing the problem of Boko Haram especially if they could use their advancement in military and security technology properly. The political leaders of Nigeria or more specifically the government should employ an international practice that is not politicized to offer more assistance in curtailing the insurgent’s activities. But few of the security personnel opined that international coalition may not always be the needed approach, as even with their
presence now, they had little impact on the ongoing insurgency organizations are still the better options, since they have fullest understanding of the stake.

Finally, Nigeria needs a regional cooperation among its West African neighbor, since Boko Haram hub of operations still remained within the borders of these West African states, notably among them: Cameroon, Chad and Niger Republic, then Nigerian government must joint effort and work closely with these countries irrespective of their colonial history or other differences to tackle the problem. On the other hand, the establishment of constant border patrol teams and sharing of intelligent information and logistic could surely assist in defeating Boko Haram insurgency.

**Conclusion**

The discourse on ethnic militancy, insurgency and internal terrorism clearly revealed that Nigeria is confronted with security challenges. This is made manifest in the Boko Haram murderous campaign against securities, government institutions, religious cleric and members of the general public. The escalating of the government to curtail the crisis has revealed how the group transformed from a local quasi-religious militia into a regional terrorist group, with linkage and support from other unIslamic insurgents in Africa like Al-Qaeda in the land of Islamic Magreb (AQIM) and Al-Shabab. The sect becomes a threat to Nigerian national security.

Finally, the paper recommends that for any solution to a security situation like that of Boko Haram to be effective a multi-dimensional approach that address both the symptoms of terrorism and root causes must include addressing the problems that create the enabling environment. Lack of employment in Nigeria remains a monumental challenge. Creating employment opportunity in the region and by so doing, the youths can be taking way from criminal activities. The government should improve school enrolment in the region to address the issue of illiteracy nationwide. The government should denied the group require operating space to carry out its attacks by preventing the group from organizing or reorganizing, recruiting and launching attacks, any form of support for the sect most be denied. The entire porous border network, through which the group might get weapons, and supports from other movements outside the country must be blocked.
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FIGHTING CORRUPTION AND FRAUD IN NIGERIA: THE ROLE OF ACCOUNTANTS

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ABSTRACT
Every day, accountants face dilemmas and critical situations that requires ethical decision making. At the same time, they must cooperate with government agencies, and respond to legislation on fraud and corruption. This paper discussed how to strike the right balance between confidentiality and legal liabilities-as well as public expectations and public interest. It also shared insights and perspectives on how accountants can better be supported in doing “the right thing.” The primary source of data was collection was adopted, with the aid of the questionnaire and interview, which were used as instruments to collate data, and was analyzed using the chi-square($\chi^2$). It was found that there are sufficient agencies established to reduce corruption in Nigeria. Accountants are one of the strong pillars that can fight corruption in Nigeria, they have not been performing exceptionally well in curbing the menace of corruption in Nigeria. Though the roles of accountants are not to detect fraud but they are required to perform their work with due care and efficiency to detect and report any fraud and corrupt practices. Also, it was revealed that the agencies have been able to reduce corruption; respondents were of the opinion that some of the institutions do abandoned their object and work to satisfy the government in power. Similarly, the institutions need to be revamped structurally and operationally. Finally, it was revealed that there is crisis in the institutional and policy management, hence, the governments, where possible, create new agencies backed by law and make them autonomous.

Keywords: Accountants, Government Agencies, Corruption, Fraud, Confidentiality, Public interest.

1. INTRODUCTION
1.1 Background of the study
Transparency International (2010)defines corruption as either the abuse of public office or misuse of entrusted trust for personal gains. Again, Corruption is the abuse of entrusted power for private gain. Fraud on the other hand is wrongful / criminal deception intended for personal gain. At micro level, it may be perpetrated to meet basic needs due to prevalent poverty while greed may be attributed to the abuse of public office and trust for personal gains. Therefore, Professional Accountants are expected to guaranty precision. It hurts everyone who depends on the integrity of people in authority whenever fraud and
corruption take place. The effect of corruption on society in Nigeria are numerous, among them are: Under development of the economy, lack of infrastructure, like good road networks, misuse of natural resources, inadequate power and water supply, mediocrity in professional and leadership positions, defective leadership outputs, fuel scarcity in an oil producing nation, falling standards of education and work output, high unemployment rates, continuous widen gap between the rich and the poor and so many other defective effects too numerous to mention. These defects can be cured with effective strengthening of the institutional framework towards fighting corruption and fraud.

This study seeks to identify whether the role Accountants should play in fighting corruption and fraud in Nigeria was exceptionally performed vis-à-vis the strengths of the established anti-corruption agencies in Nigeria well and to make recommendations on the way forward.

The following questions will be relevant in finding solution to the problem identified above:
1. To what extent has the government strengthened these anti-graft institutions towards fighting corruption and fraud?
2. To what extent can Accountants be one of the pillars fighting corruption and fraud?
3. Have the established anti-graft institutions been able to curb the incidences of corruption and fraud in Nigeria?

For this study to be backed up empirically, the following hypothesis will be tested:
4. Ho: There are no sufficient agencies established to fight corruption and fraud in Nigeria
Ha: There are sufficient agencies established to fight corruption and fraud in Nigeria
5. Ho: Accountants are one of the pillars fighting corruption and fraud in Nigeria
Ha: Accountants are not one of the pillars fighting corruption and fraud in Nigeria
6. Ho: The established institutions have not successfully curb corruption in Nigeria.
Ha: The established institutions have successfully curb corruption in Nigeria.

The study examines the causes, effects of corruption and fraud in Nigeria and solutions/way forward: the role for Accountants will be the focus of this paper.

2. REVIEW OF RELATED LITERATURE
2.1 The Meaning of Corruption

The United Nations Global Programme against Corruption (GPAC) defines it as “abuse of power for private gain” Transparency International, (2010) Sees corruption as either the abuse of public office or misuse of entrusted trust for personal gains. At micro level, it may be perpetrated to meet basic needs due to prevalent poverty while greed may be attributed to the abuse of public office and trust for personal gains.

Dye (2007) as cited in Ahmad et al (2015) described corruption as a behaviour that can occur in both public and private domains. He then defines it to include: “fraud, bribery, political financial crime, conflict of interest, embezzlement, nepotism, and extortion. Examples of government operations particularly vulnerable to corruption are travel claims; collection of taxes and customs revenues; administration of procurement contracts; concessions of subsidies, permits, and licenses; hiring, administration of personnel, and payroll systems; privatization processes; petty cash abuse; and e-commerce and Internet credit card transactions”

Machiavelli as cited in Heidenheimer, (1993) said that “Corruption can be defined as a process by which the virtue of the citizen is undermined and eventually destroyed” and argued "that man had been corrupted by social and political life. It is not the corruption of man which destroyed the political system but the political system which corrupts and destroys man."
Even though some of these definitions of corruption have been around for over decades, the recent development in Nigeria where discoveries of stolen public funds run into billions of US Dollars and Nigeria Naira, make these definitions very adequate and appropriate. Corruption is probably the main means to accumulate quick wealth in Nigeria. (Dike, 2002) opined that Corruption occurs in many forms, and it has contributed immensely to the poverty and misery of a large segment of the Nigerian population.

2.2 Causes of Corruption

Dye, (2007), posited that causes of corruption vary from country to country but majorly, unstable government and institutional faults, lack of good implementation of government programmes and policies, corrupt judicial systems and anticrime institutions, poor remuneration of workers and weak accountability and transparency structures are apparent causes in the developing worlds. The major causes are summarized in Table 1

Table 1: Causes of Corruption

<table>
<thead>
<tr>
<th>Causes</th>
<th>Main Actors</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greed</td>
<td>Management employees, political elites, politicians, businessmen, financial analysts and professionals.</td>
<td>Wholesale fraud with impunity, tax evasion scheme orchestration, creation of ghost workers, money laundering, favoritism and discrimination etc.</td>
</tr>
<tr>
<td>Need</td>
<td>Impoverished employees, petty cash officials and cashiers, opportunistic Commoners.</td>
<td>Small size embezzlement and misappropriation, bribery and kickbacks, personal tax evasion.</td>
</tr>
</tbody>
</table>

Adapted from Kpundeh, 1998 as cited in Ahmed et al

2.3 Effect of Corruption in Nigeria

The effect of corruption on society in Nigeria are numerous, among them are: Under development of the economy, lack of infrastructure, like good road networks, misuse of natural resources, inadequate power and water supply, mediocrity in professional and leadership positions, defective leadership outputs, fuel scarcity in an oil producing nation, falling standards of education and work output, high unemployment rates, continuous widen gap between the rich and the poor and so many other defective effects too numerous to mention.

These defects can be cured with effective strengthening of the institutional framework towards fighting corruption and fraud.

2.4 Can Nigerian do without Corruption?

Nigeria is passing through the greatest crisis in its brief history as an independent nation. The crisis is that of corruption, its control and possibly its extermination. The crisis as rightly put by the former President, General Olusegun Obasanjo when he said that “Corruption is the greatest bane of our society today”. He went further to say “corruption cannot be eradicated overnight it is imperative that the foundations of moral and ethical society have to be laid.” Professor Chinua Achebe in his book titled “the Trouble with Nigeria” said

“His frank and honest opinion is that anybody who says that corruption in Nigeria has not become alarming is either a fool, a crook or else does not live in this country”
In like manner, the immediate past Prime Minister of Britain rated Nigeria as “fantastically corrupt”

Recently, the President, Muhammadu Buhari, during his visit to the United State of America told the world that Nigeria lost $150 billion to corruption. Also reported at different fora were the monies missing in the Nigerian National Petroleum Corporation, (NNPC), The Niger Delta Development Company, (NDDC), Nigerian Custom Service and other revenue agencies as well as billions of dollars allegedly pocketed by unnamed ministers were released by government.

Chriatain Aid, 2008; Otusanya, 2011 and Ahmad et al (2015) observed that Nigeria, as an economy was reported to have lost an estimated sum of £205 million (N105.4 billion) in tax revenues between 2005 and 2007 to the United Kingdom, the European Union and Ireland, as a result of corruption in the form of trade mispricing

In the sixties and seventies, the legacies of honesty, sincerity, integrity and commitment left behind by colonial masters were with us but with “oil boom” in the eighties, the “professional corrupt language” such as “Nigerian factor” “Kick back” “30%” etc was developed. They were imbibed in us; they were in our blood, they are growing in us and destroying the growth and the development of our economy.

The pervasion of corruption in Nigeria has attracted criticisms from various quarters and has been widely reported, for instance Transparency International (T I) recently has this to say about Nigeria:

“Remarkable is also the position of Nigeria, again the worst performing country in the CPI (Corruption Perception Index)…”

In 1979, the Global Corruption Perceptions Index (GCPI) carried out by Transparency International shows that Nigeria occupies 130th position out of the 180 countries surveyed.

In 2014 Corruption Perception index ranked Nigeria as 136th position out of the 175 countries surveyed.

The pervasion of corruption in Nigeria is made worse for the development of the economy because of the application of the proceed, for instance, Barons of American ‘s Gilded Age amassed great fortunes through graft and bribery but the railroads they built still operate today and the gains that were so ill gotten remain in American Banks. They were invested in American enterprises. Here, in Nigeria, the contracts were either not executed at all or done so shabbily to the extent that what was built yesterday is likely to fall apart tomorrow. And monies that were embezzled were either deposited in foreign banks or stuffed in suitcases or mattresses against time they could be spirited off to overseas hiding places. Carrington (2000) said that no Chartered Accountant can accurately state the total amount of Nigerian looted funds in foreign banks. Recently Nigerian Plane stuffed with millions of Naira/Dollars was seized in South Africa. It is a different story to common man.

2.5The Agencies Established to Fight Corruption and Fraud in Nigeria

Nigerian Government has made various efforts since independence to fight corruption by legislations and by the establishment of several anti-corruption institutions in the Country. It is necessary to list some of the efforts made by the government to combat corruption in Nigeria in terms of legislations and establishment of institutional frameworks:

2.5.1 Legislations
The Corrupt Practice Decree” of 1975 promulgated by the regime of Muritala/Obasanjo;
- War against Indiscipline by Buhari/Idiagbon regime;
- Code of Conduct Bureau of 1990;
- Advance free fraud & Other Related Offences Decree of 1995 by the Abacha regime which was later re-enacted as the Advance Free Fraud and Other Related Offences Act, 2006 by Chief Olusegun Obasanjo administration;
- Corrupt Practices and Other Related offences Act, 2003 N0.6 (ICPC);
- Economic and Financial Crimes Commission (Establishment) etc. Act 2004 (EFCC); and

2.5.2 Anti-Corruption Agencies

- The Independent Corrupt Practices and Other Related offences Commission (ICPC);
- The Nigerian Extractive Industrial Transparency Initiative (NEITT);
- The Technical Unit on Governance and Anti-Corruption Reforms (TUGAR);
- Economic and Financial Crimes Commission (EFCC);
- Budget monitoring and Price intelligence unit (BMPIU) which latter transformed into Bureau for public Procurement; and
- The Nigerian Police.

2.5.3 CURRENT WAYS OF FIGHTING CORRUPTION

Ahmad et al (2015) posited that Nigeria adopted both post mortem and proactive measures in her fight against corruption. Post mortem exercises take the form of constituting investigative panels upon suspicion and/or public outcry that corruption has been perpetrated. This hardly yields any meaningful results as the consequences of corruption are usually irreversible. The establishments of anti-graft agencies to serve as watchdogs against corrupt practices are considered proactive such as the anti-corruption agencies adopted and sustained since the dawn of the fourth republic. While the establishment of these institutions has been assiduously assailed and discredited by a number of critics, it has also been applauded by some. They are assailed of being used as political whips against opposition when they uphold fierce prosecution of offenders while also being accused of laxities when they are too cautious about sensitive issues. Mallam Shekarau, during the 2011 Presidential debate outspokenly considered the establishment of EFCC a multiplication of agencies and tagged it as a ‘glorified police station’. He felt giving better funding to the Nigerian police would have produced better results. They were applauded for the work done to-date, for instance, in 2013, EFCC secured 117 conviction cases and in 2014, they secured 126 convictions in 2016 they secured over 170 convictions and still counting.

2.6 SARBANES-OXLEY ACT

The Sarbanes-Oxley Act (SOx) 2002, the Public Accounting Reform and Investor Protection Act, was passed and became law in August 2002 in the US following the series of accounting and governance scandals involving American public corporations, the most widely published being that of Enron and Worldcom corporations which were audited by Arthur Andersen. It took its short name, Sarbanes-Oxley Act (SOx), from the names of the two principal congressional sponsors. The intention was to regulate corporations that are registered under the Securities and Exchange Commission (SEC). The Public Corporations Accounts Oversight Board (PCAOB), was established to ensure adherence to the provisions of the SOx.

The major provisions of that Act relating to accounting and Audit of these corporations are:
(a) The establishment of a proper internal control system;
(b) Management taking responsibility for the truth and fairness of the financial statements;
(c) At least one member of the audit committee, being a financial expert; and
(d) Preserving audit working papers for at least seven years.

Other minor provisions of the Act include the requirement for these corporations to establish what is called “whistle blower” programmes. These were to report fraudulent accounting and audit practices anonymously.

In the US, apart from the fact that the Statement of Auditing Standards (SAS) 99 requires external auditors to actively perform procedures to detect and correct financial statement fraud, the PCAOB has now issued a new set of rules. Auditing Standards 5 (AS5) specifically directs external auditors to be conscious of the possibility of fraud in the course of their work.

Right from the planning stage through the actual performance of the assignment, the auditor is required to perform entity level fraud risk control assessment. This will include an evaluation whether the enterprise’s controls are sufficient to address the identified risks of material mis-statements due to fraud as well as controls intended to address the risks of management override of the controls. Specifically, the evaluation should address the following controls:

(i) Controls over significant, unusual transactions and particularly those that result in late or unusual journal entries;
(ii) Controls over journal entries and adjustments made in the period-end financial reporting process;
(iii) Controls over related party transactions;
(iv) Controls relating to management’s significant estimates; and
(v) Controls that mitigate incentives for, and pressures on management to falsify or inappropriately manage financial results.

The Nigerian Standards on Auditing (NSA) 5 urges the auditor to obtain reasonable assurance that the financial statements taken as a whole are free from material mis-statements, whether caused by fraud or error. The statement recognises that it may not be possible for the auditor to obtain absolute assurance that material mis-statements in the financial statements will be detected because of the inherent limitation of internal control and because much of the evidence available to the auditor is persuasive rather than conclusive. It therefore directs the auditor to:

(i) Maintain an attitude of professional skepticism throughout the audit;
(ii) Consider the potential for management override of controls; and
(iii) Recognize the fact that audit procedures designed to detect errors may not be effective in the context of an identified risk of material misstatement due to fraud.

Uthman et all (2015) citing Otusanya & Lauwo (2010) have this to say: *Although it is traditional for accountants to acclaim public interest in the conduct of their job, they have however been implicated in Nigeria for “various acts of professional misconduct and in falsification and deliberate financial engineering in Nigeria”*

### 2.7 THE ROLE FOR ACCOUNTANTS

In relation to the provisions of the Sarbanes Oxley Act, the role for Accountants cannot be over emphasized. The role of Accountant in any jurisdiction as managers of corporate resources and custodian of financial information upon which depend all rational economic decisions.

Traditionally, Professional Accountants were responsible to:

- keep records which will enable property owners to keep track of their wealth
- Provide financial information that will aid economic decision to invest or to divest.
• Provide necessary checks and balances and for this he must develop internal control measures designed to prevent fraud, misappropriation, thereby safeguarding individual and corporate funds,
• Accountants are statutorily required to attest to the truth and fairness of the records of stewardship of the Board of Directors.
• Accountants often assist clients to plan, compute tax liabilities and also ensure that these obligations are met,
• Accountants also perform the role of professional leadership. By their training, they are leaders who can be looked up to, whose personal judgment is trusted, and who can inspire and warm himself up to the hearts of those he leads, gaining their trust and confidence and explaining what is needed in a language which can be understood.

With expanded responsibilities Accountants also have important roles to play in the crusade against corruption.

**Fraud Detection:** According to (Gray & Moussalli, 2006) conventionally, checking the conformity of financial statements with applicable financial reporting framework is the backdrop against which the periodic audit operates. Therefore, fraud detection has rather been perceived as a by-product and not one of the primary responsibilities of the audit process.

In the expanded responsibility, According to (O’Leary, 1990) “The accounting profession has undertaken greater responsibilities in the performance of its services” since the evolution of modern businesses which are now premised on agency principles. (Jamal, 2008) assert that the burden of responsibilities is expanded by the expectation of fraud detection as each wave of fraud is often accompanied with the cries of “where are the auditors?”

**High Compliance with Professional Ethics:** The International Federation of Accountants (IFAC) considers the promotion and enforcement of high ethical conduct and technical performance among its members as critical success factors in this anti-corruption crusade. Therefore, the starting point of the role of Accountants is to ensure that, in the performance of their responsibilities, they should adhere to the Institute Codes of Ethics. These include, Principles of Integrity, Principles of Independence and Objectivity, Principles of High Technical Standard of Performance and confidentiality.

**To What extent have the Accountants complied with the Application of Ethical Standards?**

The widespread of corruption in the business environment seems to be the order of the day in almost all the societies. In U.K. for example, corporate scandals have involved such companies as independent Insurance and BCCI, the collapse of Enron Corporation, WorldCom, Global Crossing, and Arthur Anderson to mention but few. In Nigeria, business community is also plagued with ethical problems. Cases of unethical business behavior and corporate scandals involving such large companies such as African Petroleum Plc, Cadbury Nigeria Plc, and Lever Brothers Plc. have been reported. The collapse of many banks and other financial institutions has also been linked with ethical violations. It was alleged that management of the companies were found to engage in fraudulent activities and aided by audit firms, they were able to cover up these activities through fraudulent reporting, thereby misleading the investing public. Recently, the Board of Directors of Skye Bank Plc. Was changed by Central Bank of Nigeria as a result of fraudulent activities perpetrated by them.

3. **METHODOLOGY**

Survey research design was adopted. 225 people were randomly selected from the population of Chartered Accountants, Social Commentators, Members of Academic Staff and
Legal practitioners totaling 280 in Jos and environs. A purposely designed questionnaire was administered on them. 180 copies were completed, returned and analyzed. Data collection was tabulated statistically and employed in the testing of formulated hypothesis. Statistical technique adopted in the analysis is the chi-square ($\chi^2$) method. Because chi-square can be used to determine whether a set of theoretical or expected frequencies fits a corresponding set of observed frequencies of a sample. Based on this, the null hypothesis will be either accepted or rejected. The use of table and percentages of proportions is to show the trend of responses relating to the same questions constrained in the research questionnaire.

The chi-square test is used when it is wished to compare an actual observed distribution with a hypothesis or expected distribution. The simple percentages will be used mainly for comparison while the chi-square will be used to test the hypotheses. This is because the tools of statistical analysis are used when the hypotheses are qualitative. For the expected frequency, the formula:

$$Fe = \frac{R \times C}{N}$$

Where:
- $Fe$ = expected frequency.
- $C$ = column total.
- $N$ = Grand total.
- $R$ = Row total.

Once this has been determined, it is subtracted from the observed frequency and the result squared and divided by the expected frequency ($Fe$) to give the chi-square value.

$$\chi^2 = \sum \frac{(fo - fe)^2}{fe}$$

Where: $\chi^2$ = calculated chi-square.
- $fo$ = Observed frequency
- $fe$ = expected frequency
- $\Sigma$ = Summation
- Degree of freedom is $(r-1)*(c-1)$
- Level of significance is at 5%.
- Pie charts will also be used to depict the results.

4. DATA ANALYSIS AND INTERPRETATION

This research used an empirical survey to investigate people’s perception on fighting corruption and fraud and the role for Accountants. Questionnaires were administered to respondents in order to gather data and their views are shown in the tables below. The responses “Strongly agree” and “Agree” have five and four points respectively and are categorized as high. “Neutral” has a score of three and is categorized as medium. The responses “Disagree” and “Strongly Disagree” have two and one points respectively and are categorized as low. The high category means that respondents strongly agree with views, while low category means that the respondents strongly disagree with the views.

The questionnaire was analysed using means and standard deviations. The analysis of the means was interpreted as follows: 4.45 and above (Strongly agree), 3.45 – 4.44 (Agree), 2.45 – 3.44 (Neutral), 1.45 – 2.44 (Disagree), and Below1.45 (Strongly Disagree).

4.1 To what extent has the government strengthened these institutions towards fighting corruption and fraud?

Table 1: Mean and Standard deviations of the respondents view on research question (1-3)

<table>
<thead>
<tr>
<th>S/N</th>
<th>VIEWS</th>
<th>$\bar{X}$</th>
<th>S.D</th>
</tr>
</thead>
</table>

Contemporary Issues on Social and Management Sciences | Book of Proceedings
There are sufficient agencies established to reduce corruption in Nigeria

There are sufficient legislations in Nigeria that can reduce corruption.

The agencies are sufficiently strengthened by the government

Source: Field Survey, 2016

Table 1: There are sufficient anti-corruption agencies established to fight corruption and fraud in Nigeria

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>There are sufficient agencies established to reduce corruption in Nigeria</td>
<td>4.11</td>
<td>1.03</td>
</tr>
<tr>
<td>2</td>
<td>There are sufficient legislations in Nigeria that can reduce corruption.</td>
<td>3.94</td>
<td>1.20</td>
</tr>
<tr>
<td>3</td>
<td>The agencies are sufficiently strengthened by the government</td>
<td>3.42</td>
<td>1.31</td>
</tr>
</tbody>
</table>

The anti-corruption agencies are sufficiently strengthened by the Nigerian Government
There sufficient laws that can fight corruption and fraud in Nigeria

Table 1 above shows the distribution of respondents according to research questions which focused on the extent that the government strengthened these anti-graft institutions towards fighting corruption. The table shows that the respondents agreed on the views that
there are sufficient agencies established to reduce corruption in Nigeria, there are sufficient legislations in Nigeria that can reduce corruption. In addition, respondents were neutral about the statement that the agencies are sufficiently strengthened by the government with means of 4.11, 3.94 and 3.42 and corresponding standard deviation of 1.03, 1.20 and 1.31 respectively.

4.2 To what extent can Accountants be one of the pillars that can reduce corruption?

Table 2: Mean and Standard deviations of the respondents view on research question (4 - 7)

<table>
<thead>
<tr>
<th>S/N</th>
<th>VIEWS</th>
<th>X</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Accountants are one of the strong pillars that can fight corruption and fraud in Nigeria</td>
<td>3.85</td>
<td>1.34</td>
</tr>
<tr>
<td>5</td>
<td>Accountants perform excellently well in fighting corruption and fraud in Nigeria</td>
<td>3.99</td>
<td>1.06</td>
</tr>
<tr>
<td>6</td>
<td>The major role of Accountants is to detect and report fraud and corrupt practices.</td>
<td>4.05</td>
<td>0.61</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2016

Accountants are one of the strong pillars that can fight corruption and fraud in Nigeria

Accountants perform excellently well in fighting corruption and fraud in Nigeria
The major role of Accountants is to detect and report fraud and corrupt practices

Table 2 above shows the distribution of respondents according to research question which focuses on the extent to which Accountants can be one of the pillars that can reduce
corruption. The Table shows that the respondents agreed on the views that accountants are one of the strong pillars that can reduce corruption in Nigeria. Besides, respondents were of the view that it is the role of Accountants is to detect and report fraud and corrupt practices with means of 3.85, 3.99, 3.24 and 4.05 and corresponding standard deviation of 1.34, 1.06, 1.29 and 0.61 respectively.

4.3 To what extent is the effect of government effort in fighting corruption and fraud in Nigeria?

Table 3: Mean and Standard deviations of the respondents view on research question (8 - 12)

<table>
<thead>
<tr>
<th>S/N</th>
<th>VIEWS</th>
<th>( \bar{X} )</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>The anti-graft agencies have been able to reduce corruption</td>
<td>3.76</td>
<td>1.12</td>
</tr>
<tr>
<td>9</td>
<td>The established anti-graft institutions have successfully curb corruption and fraud in Nigeria</td>
<td>3.37</td>
<td>1.14</td>
</tr>
<tr>
<td>10</td>
<td>Some of the anti-graft institutions do abandoned their objective and operate to satisfy the government in power.</td>
<td>4.27</td>
<td>0.56</td>
</tr>
<tr>
<td>11</td>
<td>The anti-graft institutions need to be reviewed structurally and operationally</td>
<td>4.56</td>
<td>0.56</td>
</tr>
<tr>
<td>12</td>
<td>The Government needs to strengthen all the anti-graft agencies.</td>
<td>4.53</td>
<td>0.53</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2016

The established anti-corruption agencies have been able to fight corruption in Nigeria

The established anti-corruption institutions have successfully fought corruption in Nigeria
Some of the established anti-corruption institutions do abandon their objective and operate to satisfy the wishes of the Government in Power.

The established anti-corruption institutions need to be revamped structurally and operationally.
The Government needs to strengthen all the anti-corruption agencies

Table 3 above shows the distribution of respondents according to research question which focuses on to what extent has the government strengthening these institutions towards
fighting corruption and fraud in Nigeria, the table shows that the respondents agreed on the views that the agencies have been able to fight corruption, they were neutral that the established anti-corruption institutions have successfully fought corruption in Nigeria, respondents were of the opinion that some of the institution do abandoned their objective and operate to satisfy the wishes of the government in power. Moreover, respondents strongly agreed that the anti-corruption institutions need to be revamped structurally and operationally. Finally, respondents strongly agreed that the government needs to strengthen all the agencies with means of 3.76, 3.37, 4.27, 4.56 and 4.53 and corresponding standard deviation of 1.12, 1.14, 0.56, 0.56 and 0.53 respectively.

4.4 TEST OF HYPOTHESIS USING CHI-SQUARE

Re-statement of hypothesis 2:
Ho: Accountants are one of the pillars fighting corruption and fraud in Nigeria
Ha: Accountants are not one of the pillars fighting corruption and fraud in Nigeria

<table>
<thead>
<tr>
<th>Observed Frequencies</th>
<th>Strongly Agreed</th>
<th>Agreed</th>
<th>Neutral</th>
<th>Disagreed</th>
<th>Strongly Disagreed</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chartered Accountants</td>
<td>30</td>
<td>40</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>90</td>
</tr>
<tr>
<td>Social Commentators</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>30</td>
</tr>
<tr>
<td>Members of Academic Staff</td>
<td>5</td>
<td>9</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>30</td>
</tr>
<tr>
<td>Legal Practitioners</td>
<td>7</td>
<td>8</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>30</td>
</tr>
<tr>
<td>TOTAL</td>
<td>48</td>
<td>66</td>
<td>26</td>
<td>20</td>
<td>20</td>
<td>180</td>
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</tbody>
</table>

CONTINGENCY TABLE

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<th>FO</th>
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<th>(FO-FE)²/FE</th>
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<tr>
<td>30</td>
<td>24</td>
<td>6</td>
<td>36</td>
<td>1.5</td>
</tr>
<tr>
<td>40</td>
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<td>1.48</td>
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<tr>
<td>10</td>
<td>13</td>
<td>-3</td>
<td>9</td>
<td>0.69</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
<td>-5</td>
<td>25</td>
<td>2.5</td>
</tr>
<tr>
<td>5</td>
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<td>8</td>
<td>-2</td>
<td>4</td>
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</tr>
<tr>
<td>9</td>
<td>11</td>
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<td>4</td>
<td>0.35</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>1.33</td>
</tr>
</tbody>
</table>
Chi-square Tabulated @ 5% level of significance and degree of freedom (4-1)*(5-1) = 12

\[ \chi^2 \text{ Calculated} = 18.88 \]

Since the calculated value of the \( \chi^2 \) = 18.88, is less than the tabulated value of \( \chi^2 \) = 21.0261 meaning that we have no sufficient evidence to reject the null hypothesis. In other words, the result revealed that, though Accountants are supposed to be one of the pillars fighting corruption and fraud in Nigeria, they have not been performing as expected.

5. Conclusion
5.1 Research Findings

Based on the findings from this study, respondents were of the view that there are sufficient agencies established to reduce corruption in Nigeria. Accountants are one of the strong pillars that can reduce corruption in Nigeria, they have not been performing exceptionally well in fighting the menace of corruption in Nigeria. Though the primary roles of accountants are not to detect fraud but they are required to perform their work with due care and efficiency to detect and report any fraud and corrupt practices. Also, it was revealed that the agencies have been able to fight corruption; respondents were of the opinion that some of the institutions do abandoned their object and work to satisfy the government in power. Similarly, the institutions need to be revamped structurally and operationally. Finally, it was revealed that there is crisis in the institutional and policy management, hence, the governments, where possible, create new agencies backed by law and make them autonomous.

5.2 THE WAY FORWARD.

The challenge of building a democratic and economically viable corruption free state is a statutory one, amply reflected in our constitution, thus, Section 15(5) of the 1999 constitution provide that “The state shall abolish all corruption practices and abuse of power”. The question is has the state been able to abolish ALL corrupt practices? Abolish all abuse of power? Assuming we turn it to a researchable question: Where do we have the most corrupt practices in Nigeria? Where do we have the most abuse of power in Nigeria? You may wish to carry out the research at home.
It is strongly considered that the way forward is to consider the following for implementation:

1. The battle of corruption should not be left for the government alone. All hands must be on deck. Accountants should improve upon their technical expertise to be able to detect fraud that a reasonable Accountant is expected to discover. Accountant under no circumstance should Accountant be a party or play ignorance to any practice of corruption.

2. The professional bodies and their regulatory body should include in its programme that all Accountant should be trained as forensic expert because it is believed that forensic Accountants possess skills exceeding those of traditional Accountant.

3. It should be made mandatory that all audit engagement team should include a certificated forensic accounting expert. This corroborate the suggestion of Christen et al (2005)

4. Nigerian governments should strongly strengthen the Anti-financial crimes agencies given that the influence of highly placed offenders, the dignity, societal bondage and shame inherent in financial crimes may affect the potency of anti-financial crimes measures put in place.

5. The present huge expectation gap between the Professional Accountant/ Practicing Auditors and the public should be bridged through awareness, ensure maintenance of integrity and independence. Presently accounting profession is sometimes being discredited for culpability in lending acumen to the perpetration of fraud through its various costs saving scheme.

6. It is noted that strong attention is placed on the production of high qualitative Chartered Accountants in Nigeria. It is recommended that similar high attention should be placed on the regulation of the practice of accountancy and audit in Nigeria so as to achieve the campaign against fraud and Corruption by the Accountants.

7. The relevant professional/regulatory bodies should make it a policy that where it has been established that a corporate organization with clean audit report collapsed as a result of fraud and collusion with the knowledge of the auditor, such auditor should be invited for explanation. This will improve the due care and integrity of the institute in future

8. Comprehensive anticorruption legislation implemented by an autonomous agency endowed with strong legal powers
   i. Identification and targeting of government functions that is most susceptible to corruption and a review of procedures to minimize the scope for abuse
   ii. Maintenance of public salaries that are adequate and not too far below private sector levels
   iii. Adoption of additional legal deterrents against corruption, such as the nullification of contracts, licenses, or permits obtained corruptly. Such a measure would force overseas export guarantee agencies to closely monitor the international transactions they underwrite, and it would give the public an incentive to avoid corrupt behavior and report demands for bribes.
   iv. The basic Institutions of good governance need to be strengthened. At the head of this list is the judiciary, which is itself, the guardian of laws and integrity. But if the judiciary itself is corrupt, the problem is compounded and the public at large is without rule of law.
   v. The capacity and integrity of enforcement need to be enhanced. The best law has no value if it is not enforced. The best Judges and Magistrates are wasted if cases are never brought to them. Good investigations are wasted effort if the Judge or Magistrate is corrupt.
vi. Government needs to put in place a solid set of preventive tools. Codes of Conduct and strong independent oversight bodies can help ensure that the acceptable standards of behaviour are respected in both the private and public sector. Political leaders in all branches of government, legislative and judiciary can be required to have transparency in their own financial dealings through asset disclosure for themselves and their family members.

The public needs to be educated on the advantages of good governance and participate in promoting it. The public itself bears a large share of responsibility for insisting on honesty and integrity in government and business. The public needs to learn:

(a) Not to let anybody buy their vote;
(b) not to receive or pay bribes;
(c) to report incidents of corruption to the authorities; and
(d) to teach their children the right values; for example, that integrity is good and corruption is bad.

It is safe to conclude that corruption has engulfed all aspect of our society. It is equally true that the government has taken various steps in terms of legislation and the establishment of various agencies to fight corruption in Nigeria. It is noted that government has not adequately strengthened the institutions, hence the inability of the agencies to fight corruption drastically.
Reference
Christensen, J.B, et all (2005) Sarbanes-Oxley: “will you need a forensic accountant?” Journal of Corporate Accounting and Finance vol.16 (3)69-75
EFFECT OF SERVICE RECOVERY STRATEGIES OF MOBILE TELECOMMUNICATIONS SERVICE PROVIDERS ON CUSTOMER SATISFACTION

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Abstract

This paper assesses the effect of customer service failure recovery strategies of mobile telecommunications service providers on customer satisfaction in Abuja, Nigeria. Consumers suffer service failures and show willingness to retain their patronage if such issues are adequately addressed. The implication of the study is that it seeks to encourage a more market-oriented approach to telecommunications industry by focusing on what gives satisfaction of customers in the demand and supply of mobile service provision. Data were collected from 278 respondents that live in the Federal capital Territory, Abuja through self-administered questionnaires. Cronbach’s alpha was used to test for the reliability of the constructs while data was analysed using multiple regression statistics. Findings indicate that both apology and redress have positive and significant effect on customer satisfaction. Also, the relationship between speedy response and customer satisfaction is positive but not significant at all levels. The study, therefore recommend that mobile telecommunication providers should pay more attention to apologizing to their customers during the service failure and recovery process. They should also provide a means of effective redress in form of discounts, free services such as free calls or free text messages.

Keywords: Service recovery strategies, apology, speedy response, redress, customer satisfaction

Introduction

Customer service failure recovery (CSFR) is a company’s rare choice of detecting, analysing and addressing customer issues to promote retention and to dissuade post consumption detrimental actions. Regardless of the precautions taken to ensure proper service delivery, companies that display exceptional service are sometimes susceptible to some degree of service failure. These mistakes in companies however, could lead to customer switching and negative publicity depending on how customer service failure recovery practices are handled. Service failure and recovery encounters represent critical moments of truths for companies in their effort to satisfy and keep customers. These encounters may also be pivotal moments for customers many of whom experience strong emotional reactions in response to service failures and subsequently decide whether to continue their relationship with the company or to switch (Smith & Bolton, 2002). Apart from dealing with reported customer complaints, Smith and Bolton (2002) explain that the service recovery team also uncovers situations where dissatisfaction is unexpressed but the recovery team recognizes such failures and moves to initiate recovery.

Edmonson (2011), Harari (1992) and Singh (1990) point out that a large fraction of customer disappointment actually goes unreported and because of emotional stress such moves produce, majority simply withdraw their patronage and openly criticize the offerings.
Even if the service provider is not to be blamed, every customer complaint is an opportunity to reinforce commitment and pleasurable behaviour.

In the telecommunications Industry in Nigeria, customers face issues such as network fluctuations, poor service or service failure, delay in customer care services, long queues for SIM card registration, SIM card registration complexities, faulty e-commerce transactions, unavailability of services when needed, poor reception, uncaring sales people, tariff difference and lots more. The May 11th 2012 Sanction by the National Communications Commission (NCC) on MTN, Globacom, Airtel and Etisalat to pay a cumulative fine of ₦1.17 billion for poor service quality rendered in the month of March and April is one of the referenced regulatory responses (Awa, 2013). The demand is what researchers like Smith, Bolton and Wagner (1999), Groenroos (1996) and Morgan and Hunt (1994) refer to as second chance system of recovery to minimize negative actions and to regain customer confidence, trust and commitment.

Previous studies have examined the effect of service recovery strategies on customer satisfaction particularly in the developed countries, however, these studies are characterized by inconsistent findings. For example, some studies have shown that satisfaction, word-of-mouth intentions and repurchase rates of recovered customers exceed those of customers who have not encountered any problems with the initial service (Zeithaml and Bitner, 2000; Kuenzel, 2009; del Rio-Lanza, Vazquez and Diaz, 2009; Michel and Meuter, 2008. Other researches such as Hart, Hessker and Sasset (1990) suggests that a good recovery can turn angry, frustrated customers into loyalist; in other words, it creates more goodwill than if things had gone right. Similarly, Spreng, Harrell and Makoy (1995) found that satisfaction with recovery had a greater impact on repurchase and word-of-mouth intentions than did satisfaction with the initial service.

Most of these studies are alien to the telecommunications industry and to Nigeria’s setting also, there rarely exists an empirical inquiry to date that has investigated a three factor scale of organizational response to service failures. Therefore, this study attempts to bridge such knowledge gap by replicating previous works on service failure recovery in the telecommunications industry in an attempt to recognize the idiosyncrasy of Nigeria’s situations and to complement existing literature with a more holistic framework made up of three dimensions of organizational response to customer service failures. The objective of this paper, therefore, is to assess the effect of service recovery strategies of mobile telecommunications providers on customer satisfaction in Nigeria.

The variables for service recovery strategies are apology, redress and speedy response, while the dependent variable is customer satisfaction. This study choses these variables because they are not only easy to understand by the intended respondent but also easy to measure. The population is drawn from those that live in the Federal Capital territory, Abuja-Nigeria, where mobile telecommunications network providers have simultaneously operated. Since the study is interested in examining the effect of service recovery strategies on customer satisfaction, the unit of analysis involves the survey of opinions of telecommunications customers who are chosen based on the duration they have been using the network provider. The data have been collected in the months from January to July 2016. It is hoped that this study will move a step forward in educating and enlightening telecommunications companies on the need to implement service recovery strategies to accompany service failures once it occurs.

The remaining of this paper is structured as follows. Section two reviews the concepts and empirical literature related to the study and presents the theoretical framework. Section three dwells on methodological issues including sources and methods of data collection as well as variables measurement and model specification. Section four presents results and discusses the findings from the study. Lastly, Section five presents conclusion and recommendations of the study.
Concepts of Service Failure Recovery Strategies and Customer Satisfaction

Service Failure: Service Failure may refer to some consumer perceived breakdown in a company system. Service failure can result in dissatisfaction. Customer service failures occur for several reasons; service may not be available as at when promised, it may be delivered late or too slowly, uncaring attitude of sales people, outcome may be poorly executed, delays in pre-sales and after-sales-services, over-pricing and other factors. In the Nigerian telecommunications industry, epileptic power supply, inadequate telecommunications infrastructure, multiple taxations, customers, unpredictable clearance process, and bad networks of roads are signs of possible service failures (Apulu, Latham, & Moreton, 2011; Babaita, 2010).

Though it is unlikely that service companies can eliminate all service failures, they can learn to effectively respond to failures once they do occur. This response is often referred to as service recovery.

Before service recovery strategy is employed, there has to be a service mishap (failure) which occurs at some point in time in service industries. Service failure is itself determined by elements such as the nature of the service encounter, the cause of the problem and the psychographics of the individuals involved. It is defined from the customers' perspective because what an organization needs to recover from is dissatisfaction that a customer perceives in relation to a service regardless of the cause (Komunda & Osarenkhoe, 2012).

According to Christopher and Jochen (1999), service recovery is an umbrella term for systematic efforts by a firm to correct a problem following a service failure and to retain a customer’s goodwill. They further observed that service recovery efforts play a crucial role in achieving or restoring customer satisfaction. In every organization, things may occur that have a negative impact on relationships with customers. The true test of a firm’s commitment to satisfaction and service quality is not in the advertising promises, but in the way it responds when things go wrong for the customer. Success in this area includes employee training and motivation. Service recovery, in this sense, refers to actions that service providers respond to in order to correct a problem following the service failure.

In the words of Andreassen (2000) as cited in Miller, Craig and Karwan (2000: 138), service recovery refers to the actions a supplier takes to seek out dissatisfaction and in response to poor service quality, like service failure. It has to do with "those actions designed to resolve problems, alter negative attitudes of dissatisfied customers and to ultimately retain these customers". This definition suggests that service recovery is consumer oriented and its sole purpose is attempt to minimize dissatisfaction of customers that could result to negative effect on patronage of the product.

The objective of service recovery, therefore, is to put a smile on customer’s face and move customers from a state of dissatisfaction to a state of satisfaction and more importantly to develop strong relationships with customers (McGrath, 2011). Studies by Goodwin and Ross (1992) suggested that in contrast to service failure, a proper recovery process can restore levels of satisfaction and promote referrals for future purchases. The negative effect of the failure will therefore be replaced with a positive effect produced by the quality of recovery. Moreover, a superior service recovery effort may induce a “paradoxical” scenario, whereby consumers will rate the failing firm higher after the recovery than they rated the firm prior to the failure (Oh, 2006).

According to Zemke and Bell (1990) service recovery can be seen as the process whereby a company attempts to reconcile itself with unsatisfied consumers when its goods or service has been unable to meet their expectations. Closely related to this definition is proffered by Miller, Craig and Karwan (2010), who opined that service recovery refers to actions taken by a service provider in an attempt to resolve the problem that caused a service failure. From these last two definitions just mentioned, it can be deduced that service recovery aims to bridge that gap between customers’ service expectation and the actual service provided. The less the gap the
better for the provider because it is expected that it will result in increased patronage. Thus, as service failures cannot be totally eradicated, the service provider may carry out recovery strategies to reduce their negative effects. However, during the recovery process, customers expect fairness in making up for the loss that occurred during the service failure. When there is a balance between the two, the exchange is considered ‘fair’, but if the outcomes do not meet with perceived expectations, then the result is inequity, perceived injustice and service failure.

Based on the various definitions of the concept, this study defines service recovery strategies as the effort made by service providers in order to reconcile itself with its customers in the event of service failure. This definition is considered appropriate for two reasons. Firstly, it acknowledges that service recovery strategy is pursued in the event of failure. Secondly, it is an attempt to reconcile the company with its customers in order to maintain its goodwill. Effective service recovery therefore occurs when an organization or service provider is able to solve a customer problem, make restitution or regain trust following a breakdown in service delivery.

The service recovery strategies employed for this study are Apology, Speedy Response and Redress. An apology from the service provider communicates politeness, courtesy, concern, effort, and empathy to customers who have experienced a service failure and enhances their evaluations of the encounter (Kelley, Hoffmann & Davis, 1993). All complainers expect an apology (Jenkas, 1993); a calm-down process (Zemke, 1994) that expresses company’s concern (Barlow & Moller, 1996) for the consumption ordeals. “Psychological we are sorry for what happened; we will make-up and we assure you it won’t happen again” does it all to an aggrieved customer. An apology is a psychological redress (Davidow, 2000); it represents an acknowledgement by the service representative of complainant’s ordeals and acceptance of responsibility to reinstate him to his ideal state(s) if they (the ordeals) are legitimate. Ideally, apology calms dissatisfied consumers at no costs though it may be delivered very late (Zemke, 1994), perhaps when the affected customers had almost decided on detrimental actions against the offender(s).

Speedy response refers to the timeliness or promptness with which service representatives respond to customers’ issues. The Society of Consumer Affairs Professionals (SOCAP) (1994) as cited in Davidow (2003) has called for a prompt response as a key ingredient in effective consumer complaint management. It can thus be concluded that procedures must be consistent, unbiased and impartial, representative of all parties concerned and based on correct information and ethical standard to be judged fair.

According to Smith, Bolton and Wagner (1999) redress may come in form of compensating customers with discounts, free merchandise, refunds, coupons, and other economic incentives offered by the organization to counteract the inequity caused by a service failure. From the foregoing, this study defines compensation as all efforts made by telecommunication service providers to its customers, which involves allocation of resources in order to make up for the inconvenience caused by the service failure. Redress (or putting things right) is a key recovery element expected by consumers (Johnston and Fern, 1999) and the most widely researched and discussed aspect of complaint handling theme (Davidow, 2003). The basic premise is that the complainers must at least be returned to status-quo (if not more) otherwise they will remain dissatisfied with the response.

Customer Satisfaction

There are different definitions of customer satisfaction as proffered by scholars in marketing research. Disparities in these definitions could be attributed to the perspectives of the various theories that explain the concept. Satisfaction can be seen as an outcome or evaluation of what the person initially expected and what the person actually experienced. In line with the disconfirmation theory, Chang, Wang and Yang (2009) define consumer satisfaction as the psychological response or an evaluation of emotions from the customer. According to Westbrook (1980), customer satisfaction refers to an individual’s subjectively derived favorable evaluation of
any outcome and/or experience associated with consuming a product. It can be understood from this definition that the concept refers to consumer’s personal assessment of a product used or service enjoyed. This makes it highly subjective, unstable and therefore, much relevant in the marketing of services. Wesbrook’s definition is in line with Khan (2012) who opined that satisfaction can be obtained because of what was expected. If the supply of a firm were according to expectations of customers, they would be satisfied. The amount of high and low satisfaction depends upon the level of supply that meets the level of expectation or fall above/below to that level.

Customer satisfaction is the favourable intrinsic feeling a person associates with a service encounter.

**Theoretical Framework**

This study has its roots in equity theory which focuses on the motivational and cognitive processes of weighing sacrifices or investments (justice inputs) against rewards (justice outputs), and comparing the result with others experiencing similar situations (Greenberg, 1990). Equity theory’s notion of “fairness” is relevant in any domain in which exchange takes place because it is conceivable that one or both parties will perceive inequity in the exchange. An equity theory framework seems especially tenable in a service failure context, given that consumers often perceive inequity following a service failure. When inequities arise, equity theory provides a meaningful framework for shaping consumer perceptions of satisfaction, purchase intent, and word of mouth (WOM).

Several researchers have employed equity theory to explain consumer responses to service failures and recovery efforts (Blodgett, Granbois & Walters, 1993; Clemmer & Schneider, 1996). These studies generally argue that consumer ratings of failing firms will increase when they offer fair recovery efforts. As such, this study views equity theory as a theoretical rationale for the formation of some key psychological namely satisfaction and behavioural which is purchase intent and word of mouth (WOM) outcomes in a service recovery setting.

To remain strategic and competitive in the midst of varieties and better informed customers, service providers must anticipate possible errors and timely plan response actions this implication is strengthened when service representatives are well trained and empowered to proactively prevent failures and where they do occur to respond to them as correctly and timely as possible.

**Service Recovery Strategies and Customer Satisfaction**

Empirical researches have revealed inconsistent result regarding the impact of service recovery strategies and customer satisfaction. These differences in findings could be attributed to methodological disparities and research domains. In this regard, Ekiz and Arasli (2007) investigated the effects of apology, redress, explanation, attentiveness and promptness on complainant satisfaction, repurchase intentions and word of mouth communication through the use of a sample of Turkish customers, accommodated in three, four, and five star hotels in Northern Cyprus. With a sample of 394 respondents, the results demonstrated apology, promptness and redress to be positively related to the complainants’ satisfaction. It should be noted that this study focused only on the provision of hotel and catering service, the result of which may be different from that of the telecommunication industry.

In the same vein, Maxham (2003) examined the effects of different levels of service recovery on satisfaction, purchase intentions, and one’s propensity to spread positive word-of-mouth by 406 university students. The results obtained from both field survey and experimental research design indicated that moderate to high service recovery efforts significantly increase post-failure levels of satisfaction, purchase intent, and positive word of mouth. In addition, the
study did not support a recovery paradox, whereby post-recovery satisfaction is greater than that satisfaction prior to the service failure. It is worthy of note that the major strength of this study lies in the author’s ability to use both survey design, whereby scripts were handed to the respondents with hypothetical service failure and recovery scenarios which were assessed as complimentary to the experimental analysis.

Also, in the context of banking, Komunda and Osarenkhoe (2012) examined the relationship between service recovery, consumer satisfaction and loyalty in a commercial banking environment in Makerere University Business School, Kampala. The study encompasses 120 staff and students at the Business School. Factor analysis and Pearson’s correlation coefficient were used to test relationships between the variables, and to test the research objectives against the relationships between the variables. Additionally, regression analysis was used to identify strong predictors of customer loyalty, using both behavioral and attitudinal variables, and to establish the contribution. The Results show that communication had a significant relationship with service recovery and that higher levels of redress independently increase positive consumer responses. The findings also show that the interaction of employee responsiveness and courtesy can also have a positive impact on consumer evaluations.

Further, Ekerem, Asis and Asis (2007) investigated the effects of service recovery strategies on customer satisfaction. The study used 408 customers that were chosen based on random sampling method from four major Turkish banks were surveyed, and structural equations models were used to test the research hypotheses. Results indicated, among other things that perceptions of justice influence satisfaction with recovery, overall firm satisfaction, loyalty to the employee and loyalty to the organization. This study suffers the same limitation with that of Rui and Christopher (2007) and Komunda and Osarenkhoe (2012) both of which concentrated on the banking services.

Also, Ah-Keng and Wan-Yiun (2006) investigated the effects of service recovery on customer satisfaction. Specifically, they examine the perception of justice in service recovery and how it affects the level of satisfaction and behavioral outcomes. Data were collected through a survey using 428 structured questionnaire and factor analysis was conducted on 32 statements related to the three dimensions of perceived justice. The findings showed, among other things, that the complainants’ level of satisfaction with service recovery was significantly affected by perceived justice. Additionally, the behavioral outcomes of the complainants in terms of trust, word-of-mouth and loyalty were also found to be affected by their satisfaction with the service recovery.

From the review of empirical studies, it can be understood that there is paucity of literature regarding the effect of service recovery strategies on customer satisfaction in Nigeria. Even where the literature does exist, particularly in the developed countries such as the U.K., U.S. and Australia, these studies concentrated on mainly the banking and hotel and catering industries. Another issue worthy of note is that there is inconsistency in findings of these various empirical researches. As stated earlier these differences may be as a result of methodological disparities, context and units of analysis. These gaps identified make the present study apt and imperative in this ever-increasingly competitive business environment.

**Methodology**

This study adopts survey and correlational research design in order to establish the relationship between service recovery strategies and customer satisfaction of mobile telecommunication providers in Nigeria. The survey design is used in the collection of data while the correlational design is employed for testing the association between the study variables. It involves the collection of information from a sample of individuals through their responses to questions. Also, the correlation research design enables the researcher to test the adopted theory against unique and large sample observations that make findings more
generalized to the study population as a whole. The population consists of mobile service users in the Federal Capital Territory, which is home to the most demographically diverse area of the Nigerian population. An attempt was made to randomize the sampling process by selecting random days and a variety of locations for data collection such as the market, shopping centers and the street. This paper used convenience sampling to determine the sample size. 400 Questionnaires were distributed and 278 were duly completed which represents 69.5% of the population under study. The sample size consists of 278 respondents. In Nigeria, the major mobile telecommunication service providers are MTN, Airtel, Globacom, and Etisalat.

Data are collected through self-administered questionnaires, which has the advantage of enabling a researcher to collect all completed responses within a short period of time. The respondents that are included in the sample are those subscribers who have at least two mobile lines so that they may have encountered different recovery strategies and experiences from the different service providers.

Reliability analysis is established by testing whether the items grouped under a factor are internally consistent and stable. Cronbach’s alpha was used to analyze the reliability of the instruments. Reliability over 0.80 is good; reliability in the range of 0.70 is acceptable; and reliability less than 0.60 is considered poor (Sekaran, 2003). More so, to ensure content validity of the scales, the items selected must represent the concept about which generalizations are to be made. Therefore, items selected for the independent variables were mainly adapted from prior studies to ensure content validity, which are based on seven-point Likert scale ranging from “Strongly Disagree” (1) to “Strongly Agree” (7). These measures are adopted from Oliver and Swan (1989) and Tax (1993). The customer satisfaction constructs are also adopted from statements of scholars in this field of research and measures are based on five-point scale ranging from “Extremely Dissatisfied” (1) to “Extremely Satisfied” (5). This measure is also used by Bitner and Hubbert (1994).

Multiple regression was employed as the tool for data analysis. The model of the study is specified as follows:

\[ CUSSAT_t = a_0 + b_1APO_t + b_2RED_t + b_3SRE_t + e_t \]

Where \( CUSSAT \) is customer satisfaction, \( APO \) is Apology, \( RED \) is Redress and \( SRE \) is Speedy Response. \( a_0 \) is the intercept and \( b_1 \) to \( b_3 \) are the parameters to be estimated and \( e \) is the error term.

**Results and Discussions**

The correlation matrix analysis and the inferential statistics result are presented, which is followed by discussion of findings. All analysis are conducted with the aid of Stata 13.

**Reliability Test**

Reliability was assessed by Cronbach’s alpha and all scales showed values above 0.60: with customer satisfaction 0.6884; Apology 0.7857; Speedy Response 0.6800; and Redress at 0.6777. Since the reliability estimates exceeded 0.60, the lower limit of acceptability, this suggests a high level of reliability. The internal consistency reliability of the measures was analyzed using Cronbach’s a coefficients.
Table 1: Correlation Matrix

<table>
<thead>
<tr>
<th>Variable</th>
<th>CUSSAT</th>
<th>APO</th>
<th>SRE</th>
<th>RED</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSSAT</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APO</td>
<td>0.3252</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRE</td>
<td>0.2029</td>
<td>0.2982</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>RED</td>
<td>0.2765</td>
<td>0.4638</td>
<td>0.3733</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Source: Output of Correlation Matrix from Stata

Table 1 above is correlation matrix result which shows the individual relationship between the independent variables and the dependent variable and also the relationship among the independent variables themselves. The result suggest that there is positive relationship between all the independent variables and the dependent variable with coefficients of 0.33 for APO, 0.20 for SRE and 0.28 for RED. Similarly, positive correlations are established among the independent variables, however, these relationships are mild and do not indicate the existence of harmful multicolinearity. The correlation coefficients indicate that the research variables are well selected and are fit to provide meaningful results.

Table 2: Ordinary Least Square Regression Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. error</th>
<th>t-value</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.88</td>
<td>0.20</td>
<td>9.24</td>
<td>0.000</td>
</tr>
<tr>
<td>APO</td>
<td>0.15</td>
<td>0.04</td>
<td>3.70</td>
<td>0.000</td>
</tr>
<tr>
<td>SRE</td>
<td>0.04</td>
<td>0.03</td>
<td>1.32</td>
<td>0.187</td>
</tr>
<tr>
<td>RED</td>
<td>0.09</td>
<td>0.04</td>
<td>2.05</td>
<td>0.041</td>
</tr>
<tr>
<td>R Square</td>
<td>0.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj. R Square</td>
<td>0.72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F statistics</td>
<td>43.82</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Ordinary Least square regression output from Stata

Table 2 above result indicates that APO has a positive effect on CUSSAT at a coefficient of 0.15 and standard error of 0.04 with a t value of 3.70 which is significant at 1%. Similarly, RED has a positive effect on CUSSAT having coefficient of 0.09, standard error of 0.04 and t value of 2.05 which is significant at 5%. SRE also exhibits similar effect on CUSSAT, however, the result is not significant at 10%. Overall the R2 of 0.63 and adjusted R2 of 0.72 indicate that 72% variation in customer satisfaction is explained by the variables that capture service recovery strategies while the remaining 28% are explained by other factors not included in the model. Also F Statistics of 43.82 which is significant at 1% indicates that the model is well fitted and the research findings can be said to be reliable. Also, the robustness tests result indicate that multicolinearity does not exist among the independent variables as all VIF coefficients are less than 0.80 as suggested by Gujarati (2004). In sum, the model is considered adequate and fit to produce reliable results.

The findings shows that of the three variables that represent service recovery strategies, apology has the most important impact on customer satisfaction. This result is in line with the argument of Boshoff and Leong (1998) who emphasized that an apology is the
necessary first step in service recovery attempts. It is also in line with Davidow (2000) who reported that an apology, in particular, is important because it costs nothing yet significantly increases positive word-of-mouth activity. It implies that providing an apology to complainants should be given a high priority and be accompanied by other responses such as speedy response or compensation. This finding also supports the works of Ekiz and Arasli (2007) who documented the same results when they studied five star hotel customers in Cyprus.

Further, this study establishes that redress (compensation) has positive and significant impact on customer satisfaction. The implication of this result is that a perceived fair fix of the problem (redress) has a significant impact on customers’ recovery satisfaction. This is in line with the findings of Blodgett, Hill and Tax (1997) and McCollough, Berry and Yadav (2000) who concluded that fairness in fixing the problem had a positive effect on recovery satisfaction. It further supports the work of Ah-Keng and Wan-Yiun (2006) who showed that the complainants’ level of satisfaction with service recovery was significantly affected by perceived justice. It also confirms the premise that complainers must at least be returned to status-quo (if not more) otherwise they will remain dissatisfied with the response process.

Conclusion and Recommendations

In the face of stiff competition in the mobile telecommunication industry in Nigeria, service providers are trying to keep their customers happy which will eventually result in better patronage. Customer satisfaction, therefore, with high quality services has become much more important to these companies as they try to provide excellent service delivery to satisfy their customers. Despite their efforts, complaints are inevitable because mistakes are unavoidable features of service delivery. Service recovery strategies need more serious attention in these telecommunications companies in order to be proactive and provide immediate efforts to minimize bad effects on service assessment. There are various dimensions of service recovery process that have been empirically tested regarding their impact on customer satisfaction. In this study the effect of apology, speedy response and redress on customer satisfaction are examined. The study has confirmed that customer service failure recovery has an impact on customer satisfaction. It is documented that both apology and redress have positive and robust impact on customer satisfaction. It is therefore recommended that mobile telecommunication providers should pay more attention to apologizing to their customers during the service failure and recovery process. They study recommends that these companies should train and retrain service representatives to be proficient in showing courtesy, empathy, respect, politeness and concern in addressing customer’s ordeals. They should also provide a means of effective redress in form of discounts, free services (such as free calls or free text messages).

It should be noted that this work is not without limitations. Two prominent shortcomings are the fact that the study focuses on only those that reside in Federal Capital Territory (Abuja) who may be experiencing different types of service failures from those that reside in less urban centers of the country. Also, concentrating on only mobile telecommunication industry raises valid questions on the generalizability of the research findings. However, in spite of these shortcomings, it is strongly believed that the findings of this work are robust and reliable.
References


**Appendix**

. summarize cussat apo sre red

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
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<td>4.710432</td>
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<td>sre</td>
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<td>7</td>
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<tr>
<td>red</td>
<td>278</td>
<td>4.586331</td>
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KNOWLEDGE ECONOMY, ENTREPRENEURSHIP AND ITS IMPLICATION TO HIGHER EDUCATION RESEARCH IN NIGERIA

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Abstract
The world has witnessed rapid historical progress during the last centuries. The industrial era has sustained the society for more than a full century until the information era (information technology) came and took the leading role. Many changes have occurred, and now the world has entered a knowledge society. In such a society, knowledge becomes the driving force of an economy; it has become a tool for development, and a currency accepted all over the world. This study is qualitative in nature using secondary sources of data and content analysis is used as a form of research design. The study will utilize World Bank knowledge economy index for analysis. This paper look at implications of knowledge society to higher education research in Nigeria with the aim of elaborating whether or not Nigeria is moving towards that direction by making its citizens knowledge based society. The study concludes that though the reforms being undertaken in our educational sector is commendable, more efforts needs to be done to make Nigeria a truly based knowledge research society having in mind its vision of becoming one of the 20 economies by the year 2020. The study recommends that proper and timely funding of our universities and research institute as well as inculcation of relevant skills acquisition through entrepreneurship, to our teeming student should be vigorously pursued and incorporated into our higher national education curricular.

Key words: Knowledge economy, Information Technology, Intellectual Capital and knowledge society

1.0 Introduction:
Nigeria as a nation has been working assiduously to improve its knowledge base among its citizen with the sole aim of improving the well being of its society. As the saying goes; “Knowledge is power”. But despite all the reforms going on, the government of Nigeria has to a large extent neglected the educational sector which requires much funds for Nigeria to become knowledge based economy. The budgetary allocation has been scanty compared to other developing countries and par below the United Nation proposal of at least 20% of budgetary allocation to educational sector annually. This generally has a lot of implications in terms of educational advancement, research and development as well as producing highly educated skills in the society up to tertiary institution, which largely underpinned our developmental stride.

According to Encyclopedia.com (2008), the term knowledge society refers to a society in which the creation, dissemination, and utilization of information and knowledge has become the most important factor of production. In such a society, knowledge assets (also known as intellectual capital) are the most powerful producer of wealth, sideling the importance of land, the volume of labour and physical or financial capital. While Issa (2003), stated that there has come to be in today’s world, a full realization of the fact that information remains the prime commodity for this present age. It has continued since the dawn of
The availability and free flow of information has brought about knowledge which has great potentials to provide the impetus for the social, cultural, spiritual, political, economic, scientific and technological advancement of a nation. According to the World Bank, knowledge economies are defined by four pillars. These are: institutional structures that provide incentives for entrepreneurship and the use of knowledge, skilled labour availability and good education systems, ICT infrastructure access, and, finally, a vibrant innovation landscape that includes academia and the private sector.

Jemme (2012) argued that, Africa is going through an economic transition—becoming a knowledge-based economy for many young African entrepreneurs who have plenty of ideas and can think for themselves. But the continent still faces many challenges in building economies around the products of technological entrepreneurship.

Most of these efforts (building technological entrepreneurs) are in the area of missing a clear business strategy, exit plan and framework for who the potential beneficiaries should be. Entrepreneurs simply need business education: someone to look into the early stages of their idea effectively and realistically. By failing to look at those areas, many solid innovations have failed to become a reality and profitable (Graham, 2014). Other business skills are also needed to create and boost our knowledge economy. The ability to learn effectively is one; the willingness to share information is another as argued by Jemme (2012).

Beyond business skills, there is another challenge to building knowledge economy: to fill the gap between creativity and knowledge technical skills through STEAM (science, technology, engineering, art and mathematics) subjects. The worldwide interest in research systems (i.e. systems of higher education, research and innovation) has attested to the importance of knowledge society today. Knowledge can bring about rich dividend for both countries and their citizens. However, countries desirous of improving the standard of living of its people need to invest heavily on crucial areas like higher education and notably research universities and national innovations systems (UNESCO, 2009). Therefore, for Nigeria to enter the club of knowledge based society there is a need to add value to its educational sector through proper funding of its research institutions and universities which are numerous and spread across the six geopolitical zones of the country. And also, drastic changes needs to be introduced in our tertiary institution by making some of them a research base institution so that skilled manpower through innovations can be introduced into the society.

The number of African countries with official strategies to improve access to the internet rose from 32 in 2007 to 48 in 2011. One example is Kenya, where the government hopes to make ICT companies account for ten per cent of GDP by 2030 through its Kenya Vision 2030 plan, using a mixture of business incentives and infrastructure development. [4] This vision has given birth to numerous centres for digital innovation around the country and a technology park dedicated to ICTs in the capital. Nairobi’s iHub brings together young entrepreneurs with investors and potential partners. It boasts more than 16,000 members, and the organisers say that more than 150 companies have begun life within its walls.

Elsewhere, there are other positive examples. Kigali in Rwanda, Lagos in Nigeria and Accra in Ghana all have their own dynamic start-up scenes where companies have launched mobile apps, education websites and consumer payment services, to name just a few. Many of these examples involve skills in programming, business administration and engineering — employment areas that bring better wages and build local human and technical capacity.

1.1 Problem Statement

The Nigerian policy makers in our educational sector have now realize the importance of knowledge through information and communication technology and various method are being devise to achieve that objectives. The research problem in this study is centered on two
fundamental issues; the lack of proper funding in our institution of higher learning as well as lack of inculcating relevant skills to our student to make them self reliant after graduation.

Firstly, the issue of proper funding. Our higher educational institutes as a result of poor funding over the years by successive regimes in Nigeria are now in a comatose stage, which resulted in parents sending their wards abroad for more qualitative education. The issue of inadequate funding has resulted in producing half baked graduate owing to non-availability or dearth of teaching materials as well as lack of decent wages to our lecturers which served as a demotivating factor. A part from exodus of our best brain lecturers to advanced countries for more greener posture as well as good base for research, the Nigerian parents had to contend with spending enormous resources in sending their children’s to better schools, thereby contributing to the precarious situation our higher institution of learning have found themselves.

According to Boateng (2009), as Africa continues to strive to move from a resource-led development path to one underpinned by intellectual skills, knowledge and innovation, raising awareness about the value of intellectual property and providing easy access to that system will become ever more important. While government-led legal frameworks are critical in the long term, raising awareness through educational and business institutions is equally crucial if Africa’s young people are to find their rightful place in the global economy.

Secondly, lack of inculcating relevant skills through entrepreneurship development to our student more especially in the area of information communication technology has also aided in our educational backwardness in terms of human capital development. This is evident in the way we are producing half baked graduate that are unemployable. But with relevant skills acquisitions student can become self reliant and eventually become employer of labour thereby reducing poverty and improving our economic development.

Based on the problem aforementioned above, the following research questions are raise for this study:

i. To what extent has our higher institution of learning received the required attention in terms of funding?

ii. What strategies are our managers of higher institution of learning devising in achieving innovations?

iii. To what extent do our policy makers working towards making Nigeria a truly knowledge base society through research and development?

This study outlines the following objective in order to realize the goal of the study:

i. To determine whether our institution of higher learning are getting the required funding from government for uplifting educational development

ii. To evaluate how our policy makers in education are working towards achieving innovations through proper skills acquisition

iii. To assess how our policy makers are devising means of making Nigeria a truly based knowledge society through research and development.

2.0 Literature Review

The term “knowledge society” which is an alternative for “information society” by some in the academic circles was first coined by Peter Drucker in 1969, who built on the concept of information society. Knowledge society which involves all members of a community in knowledge creation and utilization is a fuller and richer concept where the emphasis is on content – the creation, distribution and use of information and knowledge in a society. It is not merely the result of the collection, processing and distribution of information, but rather, knowledge society requires application, experience and the exercise of judgment (Abdulsalami, Ekizie & Agbo, 2013).
The term “Information society” (or “information age”) has come to epitomize the changes brought about by technological advancement and globalization towards the end of the 20th century. The concept of the information society sums up the new world order, where the position of nations, their power, wealth and influence, increasingly depends on their access and ability to use information. The development of Information and Communication Technologies (ICTs) has vastly increased the amount of information available and the speed and the ease with which information is disseminated. Omekwu (2005) noted that the increase in the prime place given to information through technological development and deployment evolves into an Information Society. Information is increasingly seen as a commodity that can be acquired, possessed, bought and sold. Issa (2003) pointed this out when he defined an information society as one whereby information is seen as a tradable commodity. A commodity that can be bought and sold in the information marketplace for a given price. A commodity that is indispensable for national development.

Robert (2009) has this to say on knowledge economy about Africa. ‘‘There also remain other clear obstacles to the development of knowledge economies in Africa. Despite improving internet penetration — both fixed and mobile — Africa’s ICT infrastructure is impeded by sporadic electricity supply in many areas. And there is another, more fundamental barrier. Literacy is essential for effectively accessing the troves of information that make a knowledge economy possible. Yet as nearly 40 per cent of African adults are illiterate, a large part of the population cannot participate in the knowledge economy in any meaningful way.

### 2.1 The Concept of Knowledge Economy

Before the advent of industrial revolution, the people at that time relied on skill craft as part of their day to day engagement in pursuing their lawful businesses and skill acquisitions. Then from the beginning of the 20th century, skills craft gave way to mechanized knowledge and precisely around the 1960s, many authors have suggested that we are entering into a type of society beyond the industrial era altogether called the post-industrial (encyclopedia.com, 2009). The first description of post-industrial society was provided by Daniel Bell (1973). According to Bell, service occupations grow at the expense of those producing material goods and white-collar workers has come to outnumber blue-collar workers employed in factories. Thus, this is because work in service sector requires more knowledge and intellectual ability than work in industrial occupations. Bell, also argued that theoretical knowledge is the main strategic resource of society, and those who are concerned with its creation and distribution (scientist and professionals of all kinds) has become the leading social group, replacing industrialist and entrepreneurs.

Now to situate the above statement globally and Nigeria in particular, this researcher is of the opinion that Western Countries and some Asian Countries have gone par ahead in making their society a knowledge based than most especially less developed countries, Nigeria inclusive. For example, Nigeria, is still struggling to be among the 20 industrialized countries by the year 2020. Though, a very laudable project, but how feasible is it? Considering our level of educational development, poor infrastructures as well as economic growth. In terms of economic growth, the recent rebasing (recalculation of our GDP) of Nigerian economy has make it as Africa No.1 economy overtaking South-Africa (NBS,2013). But educationally wise, we are seriously lagging behind.

Knowledge is very vital in attaining scientific, technological, political and economic development of any nation. For any nation to progress, it depends on how knowledgeable the citizens of that nation are. A nation whose citizens are ignorant cannot be empowered economically. Okebukola (2004), without mincing words says that, knowledge is the prime mover of prosperity. A knowledgeable society is one of the basic foundations for the
development of any nation, and it is hard to think of the current knowledge evolution without information technology. Mabogunje (2004) advises that Nigeria must pay attention to knowledge acquisition. According to him, a nation which does not recognize knowledge and always think about money is lost. He further advises that the nation should return to a knowledge society, respect information and communication technology and not money bags. Knowledge is power and information is the power of knowledge. It is a very good weapon to eradicate ignorance. However, as a nation, we cannot think of knowledge without thinking of information.

Aristotle said “all men by nature desire to know”. This in essence implies that man desires to understand the events and happenings around him. Akindele (1997) paraphrasing Aristotle statement, argued that the urge to know cannot be dismissed or eradicated, no matter what the individual may be told by others and despite any attempt by others to dissuade him. Noting that he will know true peace of mind only if he follows this inner prompting to knowledge. Human beings are external seekers always wanting to resolve these issues around their environment that pose problem to them. To resolve these issues, he has found solace in many ways of understanding things affecting him.

2.2 Knowledge and Research in Context: Global and Local Considerations

The worldwide interest in research systems (i.e. systems of higher education, research and innovation, known as HERI) attests to the importance of knowledge today. Knowledge can bring about rich dividends for both countries and their citizens. However, it is increasingly urgent that knowledge serves as the priorities of national social development agendas. In this regard, research and higher education (where research is extensively conducted) constitutes a key nexus. Issues such as Research and Development expenditure levels, cohorts of highly qualified people and investment in knowledge-related areas and cooperation arrangements must be studied in relation to the HERI systems where they are found (UNESCO, 2009).

The Knowledge Society and the Knowledge economy have been driving social progress for the past two decades, and the advancement in communication and information technology are playing a major role in this process. However, a better description may be Knowledge Societies which take account of the enormous different political, social, economic and cultural contexts where knowledge is generated and shared. Worldwide, high-level knowledge – i.e. the sort which helps solve major global problems – demands that countries should invest in crucial areas such as higher education and notably research universities, research institutes and national innovation systems. When this is neglected, the significant gap between rich and poorer countries becomes even wider (Kearney, 2009).

For Africa, according to World Bank (special efforts remain vital to strengthen knowledge systems and higher education institutions which have been under-resourced in recent years due to the focus on basic education. Global problems (including the Millennium Development Goals and others such as climate change and the stability of the world economy) are extremely complex areas and require expert investigation from multiple perspectives. Against this background, the intrinsic value of the research function must be promoted via analysis of systems themselves: governance and polices, infrastructure (with high caliber research institutions and sound research universities), human resources and investment trends. In this way, countries may elaborate more effective policies which assure their sustainable growth and wellbeing.

2.3 Research and Higher Education: The Key to unlocking opportunities in Nigeria

While national research structures are wider than those found in the higher education sector alone, the research function of academia remains a prime source of a country’s
knowledge base. Over the past decade, most industrialized states have strived to address the dual challenge of providing wider access to post-secondary education and training, and in ensuring adequate investment in high-level research. This duality is proving to be a delicate balancing act which demands visionary policies and a more diversified funding base (UNESCO, 2005a). The UNESCO report continues that governments should seek to build world-class systems which assure quality provision in both teaching and research. In contrast, universities wishing to be considered as “world-class” are usually aiming at research excellence and good repute in STI (i.e. Science, Technology and Information) domains.

Against this background, the challenges for these institutions are continuing to grow. Today, about 22 of the world’s elite 25 research universities are located in one country, the USA (UNESCO, 2005b). While American higher education deserves full credit for the breadth and resourcing of this sector, this monopoly cannot be expected to meet global needs in terms of research. For this reason, support for research universities has become an important priority in OECD countries (UNESCO, 2009). The Nigerian government has over the years established relevant research institution for policy issue, science and technology just to mention but a few, but funding had been a recurrent decimal which invariably makes them comatose and ineffective. Where funding has not being a problem, underutilization or non-utilization of various research endeavors has become the norm. Take for instance, the National Institute for Policy and Strategic studies (NIPPS), where important policy papers were developed for our policy makers, but none or very little are utilized for the benefit of the country. For this trend to be reversed, funding must be increased, incentives have to be introduced, good research papers have to be reviewed and its content implemented for the country to move forward.

2.4 Implications of Knowledge Society to Higher Education Research in Nigeria.

Since knowledge is becoming the most important factor in economic and social development, managers of higher institutions in Nigeria should have a paradigm shift to functional knowledge creation, delivery, dissemination and application (knowledge process), skill training, technology acquisition and innovation accordingly (Abdulsalami et al, 2013). The implications of knowledge society to higher education research in Nigeria can be looked upon from different perspectives by posing these very important questions. Is Nigeria a knowledge based society? Are we working towards becoming one? Are our institutions of higher learning and research institute getting the required attention from the government in terms of funding and infrastructure for research purposes? Are the managers of our higher institution devising new strategist to make our universities, polytechnics, research institute an innovation centre’s rather than learning environment? If the answers to the above questions are positive, then we can undoubtedly say that Nigeria is on the verge of joining the rest of the world in becoming a knowledge society. But if the answers are negative, then the implications and consequences will be devastating to our country and well being of our society which is past manifesting in a very frightening and dangerous dimension.

Youth are graduating every year from various higher institutions in Nigeria, but without requisite and proper skills and after mandatory one year service (popularly called National Youth Service Corp or NYSC), they relied and look upon the government to provide them jobs. A recent incidence is the Nigeria Immigration Service (NIS) recruitment exercise in which 21 job seekers lost their lives in the process of recruitment to fill some limited openings at the immigration department. That simple episode in the opinion of the researcher goes to show how precarious unemployment has become in Nigeria and the need for our policy makers in education to device several means in inculcating the acquisition of relevant skills in order for student to become self-reliant after graduation from Universities and Polytechnics. The researcher also posit that relevant skills acquisition should be seamlessly
married in our educational curricular as a learning process, right from primary to tertiary institution.

Effective knowledge creation delivery and application in Tertiary Education Institution (TEI) require proper management strategies. Alabi (2001) opines that effective management strategies constitute a necessity for the success of any educational policy or programme. Since management is a process of planning, organizing, directing/leading, staffing, coordinating and evaluating the human and material resources designed to accomplish the pre-determined goals and objectives of an organization. The managers of TEI need to understand the dynamic processes of knowing knowledge creation, sharing, transformation and application as well as the role played by communication in knowledge construction and delivery.

This researcher is of the opinion that our tertiary institution are yet to make the desired impact on knowledge revolution, apparently because the country has not effectively integrated into the global knowledge economy. According to World Bank (2002), many developing countries have neither articulated a development strategy linking the application of knowledge to economic growth, nor built up their national science and technology capacity. The fact is that it is mandatory for Nigeria to embark on the reforms as developing and transition countries are at risk of being further marginalized there by widening the digital divide and remaining underdeveloped if they continued to sit on the fence.

Managers of higher institution in Nigeria, particularly the universities should see the global knowledge revolution as a challenge and play a leading role in the production of intellectual and social capital necessary for the construction of modern knowledge societies for sustainable development and poverty reduction. Unfortunately, this is not yet happening in Nigeria though some institutions have introduced e-teaching and e-learning. But the researcher must emphasize here that the current economic, social and educational reforms in Nigeria based on macro and microeconomics, knowledge, innovation and creativity are therefore commendable and need to be strengthens.

Robert (2009) posits that, regarding the role and contribution of research universities, they are characterized by top graduates, leading edge research and vigorous technology transfer. The critical dimensions here are a concentration of talent, abundant resources and favourable governance which combines to assure excellence in graduate education and research output.

In contrast, when countries lose their base for academic excellence, as argued by Robert (2009), through outdated policies, neglected institutions, the exodus of their best graduates and woefully inadequate investment in university research - their competiveness in a global knowledge society will dwindle and finally disappear. By way of example, according to Nigeria bureau of statistic, it is estimated that the best Nigerian PhDs are abroad and an estimated 47% of Nigerian doctors work in countries like USA and UK. The dangers of this process are evident in our tertiary institutions and our health service sector, where half baked graduate and medical tourism by Nigerians to more advance clime is alarming (NBS,2015). Therefore, this drift must be countered at all costs for the sake of our survival and that of the country.

Empirical data reveals that some countries especially Scandinavian and Western European countries as well as Japan, the US, Canada and lately the Chinese, have moved toward becoming truly knowledge-driven societies. While many other countries remain in an industrial age, while others are still agrarian (World Bank; UN 2005).

3.0 Methodology

The research design of the paper is qualitative and content analysis is employed in the analysis of the trends of knowledge economy in African countries where the issue of building knowledge society is less evident. The study sample is All African countries and secondary
data is sourced from World Bank knowledge economic index data base. The analysis involved the use of chart in order to see the ranking of Nigeria on the following dimensions; Innovation, Education and ICT, vis-a-vis other African countries.

4.0 Discussion and Results

In this section the researcher is going to utilize the World Bank knowledge economy index (KEI) data base, which is a platform that produces the KEI- an aggregate index representing a country’s or regions overall preparedness to compete in the knowledge economy (World Bank, 2012). The KEI according to the World Bank is based on a simple average of four sub indexes, which represent the four pillars of the knowledge economy: 1.Economic incentive and institutional regime (EIR) 2. Innovation and technological adoption 3. Education and training 4. Information and Communication technology (ICT) infrastructure.

The (EIR) Comprises incentives that promotes the efficient use of existing and new knowledge and the flourishing of entrepreneurship. An efficient innovation system made of firms, research centers; universities, think tanks, consultants, and other organizations can tap into the growing stock of global knowledge, adapt it to local needs, and create new technological solutions. An educated and appropriately trained population is capable of creating, sharing and using knowledge. A modern and accessible ICT infrastructure serves to facilitate the effective communication, dissemination, and processing information.

<table>
<thead>
<tr>
<th>Country</th>
<th>Knowledge Economic Index</th>
<th>Economic Incentive Regime</th>
<th>Innovation</th>
<th>Education</th>
<th>ICT</th>
<th>2012 Rank</th>
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<td>ICT</td>
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**Figure 1: Bar chart comparing Nigeria with its peers in Africa**
From table 1, it can be seen that Nigeria is ranked number 20 in Africa in terms of knowledge economy index going by World Bank report of 2012. South Africa came first cumulatively then followed by Mauritius a tiny island at the fringes of Indian Ocean. Tunisia, Namibia and Egypt came third, fourth and fifth respectively from the table. The bottom countries are Siera Leonne, Cote d’Ivoire, Sudan and Zambia. This shows that Nigeria as nation has a lot in it hand in order to compete at regional levels not to even talk about the global ranking.

The Figure 1, which showed a bar chart of 5 among the emerging economies of Africa, also revealed that Nigeria is trailing behind despite our being the largest economy in Africa. This is a very serious and frightening situation. Our leaders have to refocus their policies and energies on education and most especially in ICT, if we are to compete at the global arena. Cumulatively, Nigeria is left behind among the emerging economies of Africa and effort need to be put to overcome this challenges.

5.0 Summary and Conclusion

Nigeria without a doubt is not a knowledge society but efforts are being undertaken through various reforms to bridge the gap with the leading knowledge society based countries. Introduction of far reaching reforms in the area of information technology accessibility like the Galaxy Backbone (which is the internet gateway to Nigerian government and some institution of higher learning) is a sign of paradigm shift from traditional acquisition of knowledge (research) through libraries to accessibility via the internet. Knowledge in Nigeria must be integrated into an effective system of research institutions, innovation-driven enterprise, universities and other establishment.

The issue of funding should be vigorously pursued as the anti-dote for the nation’s journey of becoming one of the 20 greatest economy by the year 2020 which is just four years away from now. Empirical evidence have shown that the incessant national strike embarked upon by our lecturers in Nigerian universities, Polytechnics and Federal colleges of education were all as a result of poor funding and poor working environment in our higher institution which had left the educational system in a precarious situation. Therefore, the implication of the strike is the continuous producing of half-baked student that are not employable and the idea of parents sending their wards in advanced countries and even less developed countries than Nigeria; for instance, our students nowadays goes to Sudan, Uganda Tanzania, and Malaysia to acquire degree and post-graduate degree because of incessant strike and lack of quality of our education in Nigerian higher institution.

The knowledge economy holds great promise for developing countries, but depending on the availability of infrastructure and human capital, this promise can turn into a mirage. The economic ideology of creating economic growth through boosting knowledge cannot be applied without proper planning. Before jumping head first into the knowledge economy, developing country governments need to take stock and ask themselves whether such a system is achievable, and indeed if it is desirable, for their country.

5.1 Recommendations:

The paper having discussed some implication of knowledge economy to management of research in institute of higher education in Nigeria recommends the following:

1. That the Nigerian government should fund more research institute in order to bring more of innovations and reduce skills gap.
2. Since in knowledge economy, knowledge is the most important factor of production, emphasis should be given to our higher school of learning (i.e. the Universities, Polytechnics etc.) in terms of moulding the creativity of our student’s mind.

3. Emphasis on our academicians should be more on practical oriented rather than theoretical, most especially in Science and Technology courses as well as entrepreneurship in social science courses.

4. Inculcating reading culture among our youths through accessibility to Internet; and e-library should be more broaden and widen nationwide.

5. People with unique talent should be given special recognition, such as those proficient in academics, ICT’s and other disciplines.

6. Entrepreneurial courses should be enhanced in our institution of higher learning so that student can get the necessary skills which they can use to their advantage after graduating from school.

7. Some of our universities should be designated and converted to research base universities in order to drive the growth of the economy in terms of research and development (R&D), innovations and inventions.

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References:
Abdulsalami, et al (2003); ibid
THE ROLE OF ENTREPRENEURSHIP ON SELF-EMPLOYMENT INTENTIONS OF KANO STATE POLYTECHNIC OF BUSINESS STUDENTS DEPARMENT.

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Abstract
Entrepreneurship is a global phenomenon affected by the emergence of new small and innovative start-up businesses which is positively resulting in economic growth across the world. Due to these new small businesses positive contributions to the economy, it plays a significant role in creating new jobs, influencing governments to recognize and support entrepreneurial start-up activity. The study is based on the theory of planned behavior (TPB) that serves as the bases in which three hypotheses were developed to examine the relationship between entrepreneurship education, entrepreneurial experience and entrepreneurship desirability on self-employment intention. Simple random sampling technique was used to collect primary data from 70 under-graduate students of Kano state polytechnic. Data were analyzed using a statistical package for social science (SPSS) version 16. Findings from this study shows that entrepreneurship education and entrepreneurship desirability are positively related to graduate student’s intention towards self-employment while entrepreneurship experience has no significant positive relationship on the students’ intention towards self-employment. The study has contributed to expanding the TPB theory and also signalled to the practitioners such as the education authority and the government to look into the effect of entrepreneurship education and entrepreneurship desirability as influencing factors on students’ self-employment intention.

Keywords: Entrepreneurship education, entrepreneurial experience, entrepreneurship desirability, self-employment intention.

INTRODUCTION
Entrepreneurship is a global phenomenon affected by the emergence of new small and innovative start-up businesses which is positively resulting in economic growth across the world. Due to these new small businesses positive contributions to the economy, it plays a significant role in creating new jobs, influencing governments to recognize and support entrepreneurial start-up activity. In the early days, entrepreneurship was traditionally viewed and supported by the economist as a mechanism that is responsible for economic expansion (Cole, 1965; Weber, 1930) due to its profit oriented association, as well as the formation of new markets and capital investment (Cantillon, 1755; Schumpeter, 1934). According to the Global Entrepreneurship Monitor (GEM, 2000) report, society’s key social and cultural norms are the general attitude of the public towards entrepreneurship as well as the understanding and support of its importance in that society. For instance, in a study that was conducted in several European countries, it was found that society’s negative stance concerning change, innovation and creativity drastically reduced the number of people involved in forming or starting a new business. Accordingly, the reasons why several entrepreneurs choose to embark on a business even before searching for an opportunity is being explained by entrepreneurial intentions (Krueger 2000). It is known that before the formation and development of a new business, an individual needs to make decisions and
conscious choice. Naturally, it is an intentionally deliberate behavior. Therefore, it is logical to see that intention could offer valuable insight into the kinds of people that would be attracted to become entrepreneurs.

Typically contemplating career options by Tertiary students leads up to and after graduation. For example, in the United States of America, reports show that up to 60% of 18 to 29 year-old reported that they want to own their own businesses (Kurakto, 2005) and more than half of new entrepreneurs are individuals younger than the age of 30. Despite the encouraging number of individuals interested in becoming entrepreneurs, very few students immediately after graduation will start a business due to the fact that many students do not consider entrepreneurship as a career option (Hisrich and Peters 2002). This is a problem given the importance of new business start-ups to the society and economy and as a result, this issue becomes a research area requiring further investigation. After a decade of reviewing the literatures in entrepreneurship education, Gorman, Hanlon and King (1997) confirmed that entrepreneurial attributes can be influenced through entrepreneurship education as suggested by preliminary evidence and however stated that future research with a stronger empirical focus is required in this area.

Though, little research has been investigated on the exact impacts and general effectiveness of entrepreneurial education. The question that is still relatively uninvestigated is whether entrepreneurship education can influence entrepreneurial intention (Peterman and Kennedy, 2003), and be understood clearly (Von Graevenitz, Harhoff & Weber, 2010). It is imperative to know more about the students’ career intentions so as to have a better understanding of the problem and also understand the impact of their individual environments. As a result of the above issues, this study seeks to examine the relationship of entrepreneurship education, entrepreneurial experience and entrepreneurship desirability on self-employment intentions among undergraduate students of Kano state polytechnic.

This study aims at examining the relationship of entrepreneurship education, entrepreneurial experience and entrepreneurship desirability on self-employment intention. Therefore, the following hypotheses are developed: There is a positive relationship between entrepreneurship education and self-employment intention among undergraduate students in Kano state polytechnic; There is a positive relationship between previous entrepreneurial experience and self-employment intention among undergraduate students in Kano state polytechnic; and There is a positive relationship between entrepreneurship desirability and self-employment intention among undergraduate students in Kano state polytechnic.

Conceptual and Theoretic Framework

Concept and classification of entrepreneurship

The term entrepreneurship origin has a history that can be traced back to 1732, when an Irish-French economist, Richard Cantillon used the word to refer to individuals with "a willingness to carry out forms of arbitrage involving the financial risk of a new venture" (Minniti and Lévesque, 2008). “Entreprendre”, the active form of entrepreneurship, can be taken to mean and be interpreted as "to undertake or start something". Scholars, researchers and economists like Schumpeter (1934); Knight (1921); Kirzner (1973) are among several and the most prominent contributors to our today's understanding of entrepreneurial behavior (Minniti and Levesque, 2008).

Woolf, (1980) says in a universal term, an entrepreneur is defined as "one who organizes, manages, and assumes the risks of a business or enterprise". While this definition may seem plausible, some researchers like Shane and Venkataraman (2000), Bruyat and Julien, (2001), Ireland and Webb, (2007) argued that the field of entrepreneurship lacks a clear conceptual frame with no clear boundaries.
Self-employment Intention

Self-employment intention also referred to as entrepreneurial intent means the intention of an individual to perform an entrepreneurial behavior. Zhao (2005) defined it as the intention to start a new business venture, the intention to own a business as stated by Crant (1996), or the intention to be self-employed, Douglas and Shepherd (2002). A number of researchers among others that includes (Shapero and Sokol, 1982; Bird, 1988 and Krueger 2000) have recognized that intent plays an important role towards becoming an entrepreneur.

In examining the entrepreneurial activities and events, it was suggested by researchers that entrepreneurial opportunity existence, the entrepreneurs’ ability to recognize it, and the entrepreneur’s conscious decision to utilize that opportunity are among the necessary steps or requisites in the entrepreneurship development process (Shane, 2003). Hence, it was argued by Krueger et al. (2000) that the process of entrepreneurial intention appears to be an individual considerate part, and opportunity identification is based upon individual intention. Several researchers have successfully used and utilized intentions models to examine entrepreneurial intentions with respect to its antecedents Chen, Greene and Crick (1998), Douglas and Shepherd (2002), Kolvereid et al. (2006), Krueger, Reilly and Carsrud (2000), Peterman and Kennedy (2003), Zhao et al. (2005). For the purpose of this research work, entrepreneurial intention will be defined as an individual’s intention to become self-employed.

Concept and classification of Entrepreneurship Education

Entrepreneurship education is the development of knowledge and skills either “about” or “for the purpose of” entrepreneurship generally, as part of recognized education programs at primary, post-primary or tertiary-level of educational institutions (Global Entrepreneurship Monitor, 2010). Harvard University is where entrepreneurship course was offered for the first time on February 1947, with 188 students who were enrolled in MBA program participated in the course. Accordingly, approximately more than 50 years after, in North America, more than 120,000 students are participating in the course (Katz, 2003). Entrepreneurship discipline and professorship strong growth in recent years can be observed both in the USA and German speaking countries (Klandt, 2004). Ogundipe, Emmanuel, Kosile, Adejoke, Olaleye, Olugbenga, Ogundipe and Olatunde (2012) using a sample of graduating students of the Department of Guidance and Counselling and Business Education Students of Lagos State University, Nigeria, suggested that both courses have an impact on the intention to entrepreneurship thereby revealing that counselling students’ intention to entrepreneurship is stronger than their business counterpart.

Entrepreneurial Experience

Heperd and De Tienne (2005) implies that prior knowledge is associated with the realization of a greater and a number of innovative entrepreneurial opportunities. Prior knowledge as defined by Venkataraman (1977) is the distinct information ability of an individual about a specific subject matter, and could be as a result of education or previously attained work experience (Souitaris, 2007).

Past business and entrepreneurial experiences as researches have shown influences an individual decision making and business performance (Dyke, Fischer and Reuber, 1992). Hisrich and Peters (2002), Scherer, Adams and Carley (1989), Taylor and Thorpe (2004) have identified various studies isolating the reasons why previous business experience, role models, and networks as important to individuals become entrepreneurs. Throughout the entrepreneurial process, an individual decision making as proposed by Taylor and Thorpe (2004) can be influenced by an individual’s network that act as his source of information.
Entrepreneurial expertise and experience level may be attained by an individual prior to entering tertiary education through real-world experiences and also through participating in entrepreneurship education. Matlay (2006) says an individual may also benefit from an experiential pedagogy in the absence of previous entrepreneurial expertise where they can come into contact with and learn from more experienced entrepreneurs. The entrepreneurship education intervention can be taught by serial entrepreneur and tutors who also engage in prior entrepreneurial endeavors.

Entrepreneurship Desirability

Shapero and Sokol (1982) stated that the entrepreneurial event of individuals’ attitude, feelings and values which were a consequence of own distinctive social environment (e.g. peers, families, educational and professional influences) resulted from the influence of their perception of desirability of self-employment. Besides, individual needs to see the performance of an entrepreneur as desirable before the likely intentions to be self-employed is to be framed.

Moreover, in the process of intentions Bird (1988) recognized feasibility as ‘rational thinking’ and desirability to be structured via ‘intuitive thinking’. In the study of Mitchell, R., Busenitz, L., Lant, T., McDougall, P. and Morse, E, perceived desirability of self-employment is full of attitudinal judgement (an emotional reaction) and entrepreneurs utilizes this judgement to settle on the decision of whether to act or vice versa (Smith, 2002). This accompanies that an objective of entrepreneurship education may create positive mind among students towards entrepreneurship.

Perceptions of Feasibility of Entrepreneurship

According to Shapero and Sokol (1982), individual’s perception of feasibility is associated with the perception of available resources of an individual (knowledge, partners and financial backings). McMullen and Shepherd (2006) expressed that perceived feasibility (i.e. the belief in the ability to seek after entrepreneurial action) is a function of entrepreneurial knowledge. Krueger et al., (2000), based on Shapero-Krueger framework, perceived feasibility is a substitute for entrepreneurial self-efficacy.

In the study of Shapero and Sokol (1982), both perception of feasibility and desirability certainly interrelate. This implies that if the establishment of a new venture is seen as unfeasible by an individual then it is assumed to be undesirable and vice versa. Thus, it is conceived that students’ attitude towards being self-employed might absolutely be affected by participation in entrepreneurship education. Alternatively, in the non-existence of perception of feasibility i.e. individual’s belief to be self-employed as well as the capacity to gain important assets, self-employment might not be formed. On the other hand, participation in entrepreneurship training might absolutely influence student’s perception of feasibility; however, self-employment intention cannot be structured without the desire to be an entrepreneur.

Theory of Planned Behavior (TPB)

The theory of planned behavior (TPB) as developed by (Ajzen, 1991) is the most popularly used as a central framework to establish the reasons behind the study of individual action (Ajzen, 2001) and precisely the intention of an individual to involve in different actions. TPB among the other enormous group of the models of intention has been repetitively used in the area of entrepreneurship, which has been providing research outcomes of sound validity (Krueger et al., 2000; Fayolle and Degeorge, 2006).

Ajzen (1991) stated that the individual’s intention to execute a given behavior is the central construct of TPB. Accordingly, attitude towards a behavior, subjective norms and
perceived behavioural control are the best predictor of intention. Subsequently, exogenous factors (such as demographics, traits, skills and social, financial and cultural backing) indirectly impact on intention and behavior.

This study will consider the influence of entrepreneurship education and entrepreneurial experience and entrepreneurship desirability as exogenous factors that may shape an individual’s cognitive process of self-employment intention. Krueger (2000) found that situational and personal variables indirectly influenced individual’s entrepreneurial intentions by influencing key attitudes and perceptions. However, entrepreneurship education, entrepreneurial experience and entrepreneurship desirability will affect entrepreneurial intentions only if they change key perceptions and attitudes such as, perceived desirability of becoming self-employed and perceived entrepreneurial self-efficacy. This research will examine the influence of these exogenous factors in the formation of under-graduate students’ self-employment intentions.

Materials and Methodology

As a matter of the type of the questions adopted in this research, a quantitative research design is considered suitable for this study. This research will be conducted in a cross-sectional approach, and the essence of a cross-sectional approach over a longitudinal approach is that it saves time of the study and requires lesser number of personnel (Sekaran and Bougie, 2009). The total population of the study is 150 Business under-graduate students that were active in status in Kano state polytechnic as at when the study was conducted, and were used as the population size. Simple random sampling was used, according to Sekaran and Bougie (2013), this design is best when the generalizability of the findings to the whole population is the main objective of the study. In this study, a representative sample of 70 students were chosen randomly out of 150 Business under-graduate students that were active in status as at when the study was conducted were surveyed in Kano state polytechnic.

The questionnaire used contains multiple choice questions and the participants response format was constructed on a positive worded question of 5-point likert type scale ranging from (1) - Strongly disagree to (5)- Strongly agree (Sekaran, 2003). The questionnaire is divided into two main parts which consist of Part A, which basically entails the demographic questions; hence some basic information about respondents. And part B, presents questions about self-employment intention, entrepreneurship education, entrepreneurial experience and entrepreneurship desirability.

The pilot study result shows that the variables used in the study, which are (Self-employment intention, Entrepreneurship education, Entrepreneurial experience and entrepreneurship desirability) are consistent as their Cronbach Alpha values are indicated in Table 1 below which is higher than the least required value of Cronbach Alpha. Therefore, the results of the attained values are acceptable (Sekaran, 2000). The items used under each variable of the study instrument are found reliable and consistent.

Results and Discussion

Table 4.3 below indicates the mean and the standard deviation estimation for all variables in this study. With reference to the table, it can be ascertained that the mean for all variables is more than 3.00. The mean for SEI variable is 3.95 with standard deviation of 0.506. The mean for EE variable is 4.12 and with standard deviation of 0.518 while the mean of EEX is 3.01 and the standard deviation 0.801. Also, the mean of the ED is 3.31 and the standard deviation is 0.507. Therefore, the result of the descriptive statistics implies that all the four variables involved in this study are statistically significant. In short, entrepreneurship education, entrepreneurial experience plays a significant role in self-employment intention of the students and so is also entrepreneurship desirability significant.


### Table 1

**Descriptive analysis of Variables**

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEI</td>
<td>3</td>
<td>5</td>
<td>3.95</td>
<td>.506</td>
</tr>
<tr>
<td>EE</td>
<td>3</td>
<td>5</td>
<td>4.12</td>
<td>.518</td>
</tr>
<tr>
<td>EEX</td>
<td>1</td>
<td>4</td>
<td>3.01</td>
<td>.801</td>
</tr>
<tr>
<td>ED</td>
<td>2</td>
<td>4</td>
<td>3.31</td>
<td>.507</td>
</tr>
</tbody>
</table>

Source: field survey 2016

### Test for Multicolinearity

The issue of multicolinearity occurs where there is high correlation between two or more predictors in a model thereby resulting into redundant information about the response. Multicolinearity can be detected by checking the tolerance and the value of variance inflated (VIF). According to Hair et al., (2013), the tolerance value of 0.1 or lower and a VIF value higher than 10 indicates multicolinearity threat. In this study, the tolerance value are higher than the treshold value of 0.1 while the VIF value is lower than the threshold value 10 which indicates that multicolinearity is not a threat. The result of the multicolinearity test is presented in Table 2 below.

### Table 2

**Test for Multicollinearity**

<table>
<thead>
<tr>
<th></th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE</td>
<td>.699</td>
<td>1.430</td>
</tr>
<tr>
<td>EEX</td>
<td>.800</td>
<td>1.250</td>
</tr>
<tr>
<td>ED</td>
<td>.730</td>
<td>1.369</td>
</tr>
</tbody>
</table>

Source: field survey 2016.

### Hypotheses Testing

The multiple regression analysis result in testing the influence of entrepreneurial experience, entrepreneurial education and entrepreneurship desirability on self-employment intention shows that the regression equation with the predictor of $R = 0.787$, $R^2 = 0.619$, $R^2$ Adjusted $= 0.603$, $F (4,22) = 42.24$ $P < 0.00$. These reveal that the predictors (independent variable: entrepreneurial experience, entrepreneurial education and entrepreneurship desirability) contributed 60.3% variance level in explaining self-employment intention. The result of the F-test revealed a significant relationship between the independent variables and the dependent variable representing the overall model by the equation: $F (4, 22) = 42.24, P < 0.05$. As depicted by Table 2 below, the results shown that entrepreneurship education (EE) indicated by a beta value of ($\beta = 0.501$) has a larger contribution in explaining the variance in self-employment intention (SEI) than entrepreneur experience (EEX) and entrepreneurship desirability (ED) with beta value ($\beta$) equal to 0.156 and 0.307 respectively.

Furthermore, regression analysis shows a significant effect of entrepreneur education (EE) ($\beta = 0.501, t = 5.757, P < 0.05$) on self-employment intention (SEI), that is, $\beta$ is equal to 0.501, t-value is 5.757 and the significant value P is less than 0.05. While entrepreneur
experience (PEE) failed to show an evidence of significant relationship ($\beta = 0.156, t = 1.916$, $P > 0.05$) with SEI, that is, $\beta$ is equal to 0.156, $t$-value is 1.916 and the significant value $P$ is greater than 0.05. Moreover, ED shows an evidence significant relationship ($\beta = 0.307, t = 3.609$, $P < 0.05$), that is, $\beta$ value is 0.307, $t$-value is 3.609 and the significant value $P$ is less than then 0.05.

Thus, hypothesis H1 and H3 are accepted indicating that EE and ED has positive relationship with SEI while hypothesis H2 is not accepted indicating that EEX has no positive relationship on SEI. Table 3 presents the result of regression analysis for Hypotheses 1, 2 and 3.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>0.615</td>
<td>0.316</td>
<td>1.946</td>
</tr>
<tr>
<td>EE</td>
<td>0.489</td>
<td>0.085</td>
<td>0.501</td>
<td>5.757</td>
</tr>
<tr>
<td>EEX</td>
<td>0.099</td>
<td>0.051</td>
<td>0.156</td>
<td>1.916</td>
</tr>
<tr>
<td>ED</td>
<td>0.306</td>
<td>0.085</td>
<td>0.307</td>
<td>3.609</td>
</tr>
</tbody>
</table>

Dependent variable: SEIMean

Summary and Conclusion

The study has contributed to the body of knowledge by supporting the previous studies on the established link between entrepreneurship education, entrepreneurial experience and entrepreneurship desirability on self-employment intention and as well been able to expand literatures on the concept of entrepreneurship. More so, the empirical findings of the study have been able to provide a support to underpinning theory (TPB) by concretizing TPB which postulates on the intention of individuals to engage in certain activities. Accordingly, the study has provided an avenue for government and education authority to install a program that can improve the self-employment attitudes among youths.

Based on the research model used, entrepreneurship education is found as the recognized key factor to enhance the students’ entrepreneurial intention among the business undergraduate students of Kano state polytechnic as entrepreneurial experience has a non significant influence on the students’ entrepreneurial intention. Despite the low in entrepreneurial experience, students still have the intent to be self-employed thus; entrepreneurship education influence the students’ intention to be self-employed.

Recommendation

1. With respect to the findings of this study, implications were found for the academicians and practitioners in this study.
2. Student should be exposed to educational system which lay emphasis on developing entrepreneurial skills and knowledge.
3. Entrepreneurship educators and the government should team up to produce and promote a good image of entrepreneurship as a choice of career.
4. Also, policy makers of the institutions and the community should team up to instil entrepreneurship culture amongst the polytechnic students.
REFERENCES


INCOME VOLATILITY AND INTERNATIONAL FINANCIAL REPORTING STANDARDS: A TEST FOR THE BANKING INDUSTRY IN NIGERIA

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Abstract
Volatility of Income may be caused by economic shocks within a firm’s operating environment, or by income determination, occasioned by the accounting standards in force. Financial reporting standards play a significant role in income determination, which is one of the key elements for decision making by the users of financial information. This study assesses volatility in the income of banks in Nigeria, in view of the recent adoption of International Financial Reporting standards in the country. The paper hypothesizes that International Financial Reporting Standards does not significantly enhance income volatility relative to the pre IFRS adoption period. An independent t-test is used as the technique of analysis. Using purposive sampling technique, a sample of 15 listed deposit money banks was used out of a population of 20 quoted deposit money banks as at 31st December, 2014. The study covers a period of 10 years, divided into pre IFRS and post IFRS adoption periods. Secondary data, extracted from the published annual reports and accounts of the selected firms were utilized. The paper uses decision usefulness theory as underpinning framework for the study. The study finds that volatility of income under the post IFRS adoption period is not significantly different from the volatility under the pre IFRS adoption period. The paper therefore recommends amongst other things, that the Financial Reporting council of Nigeria should ensure total compliance by other key sectors of the economy in order to gain from other benefits of the IFRS, such as comprehensive financial reporting disclosure.

Key Words: International financial reporting standards (IFRS), Income Volatility, Pre and Post Adoption Periods.
1.0 Introduction

IFRS 13 identifies three hierarchies that could be used in fair valuing the assets of an entity, depending on the availability of the required inputs. The last hierarchy that requires observable inputs to be used in the valuation, in the absence of similar prices or readily available market information, encourages management judgments and in some times estimates, which could contain some intended or unintended errors. This therefore impacts on the net income of an entity having been an end product of such judgment and estimation, thus causing some income volatility.

Furthermore, some studies have shown that the adoption of fair value accounting in determining the financial instruments could results in having volatile income (Barth et al. 2008; Gray, 2003). As such, volatile income might not be relevant for prediction and hence impedes informed decision making by the users. Azira (2012) points out that banking institutions would be one of the hard hit sector by fair value accounting, specifically by the requirements of IAS 39. This is because large proportion of the banks statements of financial position are dominated by financial assets and liabilities. In view of this, recognizing financial instruments through fair valuation could inject volatility in the financial reports (Hodder, et. al, 2006).

Consistent with the aforementioned studies, Latridis and Rouvolis (2010) found that in Greek, IFRS injects volatility in the financial statements of the firms covered by the study. This clearly suggest that the fair valuation, being the key measurement standard of the IFRS has played a vital role in changing the hard accounting numbers of the financial reports. In his submission, Sun (2014) observe that fair value is associated with entire market volatility, which is composed of volatility in earnings, stock prices and government debt. Therefore, Income is bound to be volatile in an environment of fair valuation (Yonetani & Katsuo, 1998; Khan & Bradbury, 2014).

In view of the foregoing, it is expected that, the historical cost model, which is characterized by being reliable and verifiable would produce a noise-free income, relevant for users future decision needs. Therefore, it is presumed that income generated through the generally accepted accounting principles would not be as volatile as the income produced by the fair value accounting model. The paper therefore is aimed at examining the volatility of income, if any, on the listed commercial banks in Nigeria, in view of the adoption of the fair value accounting. in order to achieve such objective, the following null hypothesis is therefore formulated:

\[ H_0: \text{Fair value accounting does not significantly enhance income volatility relative to the pre IFRS adoption period.} \]

The paper is motivated by the mandatory adoption of International Financial Reporting Standards (IFRS), in Nigeria, at a time when the economy does provide an active market for the valuation of most assets and instruments, which require fair valuation in line with the standards. The absence of these active markets, therefore, provide an avenue for management of firms to use their value judgments in assigning values to the elements of financial reports, year in, year out. This inconsistency therefore is capable injecting some element of volatility in the financial statements. This could therefore make it difficult for financial information comparability and consequent decision making.

The reminder of the paper is organized as follows: section two dwells on review of related literature, section three is on the research methodology, section for is on the results and discussion of the paper, while the section five covers the conclusion and recommendation.
2.0 Literature Review

Accounting income generated through fair value model are likely to be more volatile and more variable than the ones generated through Historical Cost Model. The volatility in income or earnings raises banks’ cost of capital, because increase in volatility does not reflect on the underlying economic volatility of banks operations. This might also result in inefficient capital allocation decisions by investors (Barth, Landsman and Wahlen, 1995). Volatility of earnings might arise from two major sources, namely: earnings volatility due to economic shocks and volatility due to accounting determination of income (Dichev and Tang, 2008). The Income determination associated volatility arises from the underlying accounting standards in use. As such with the adoption of the international financial reporting standard (IFRS), which centers on fair value accounting as the supreme means of valuation, there is bound to be volatility in income of entities relative to the fair valuation hierarchies employed.

Under earnings volatility situations, managers may influence the accounting numbers in order to successfully meet the requirements of accounting regulation or debt covenants. They may also use discretionary accounting policies in order to improve the company’s financial results and their remunerations (Latridis, 2010). In a related development, Latridis and Rouvalis (2009) found that the introduction of IFRS with fair value as the central element has introduced volatility in key income statement and balance sheet values of Greek firms. It is therefore, worth noting, that fair value could allow for opportunistic income determination by managers, hence resulting to standard induced earnings volatility.

Therefore, Volatility of income informs the quality of earnings reported by an entity. As such low volatile earnings tend to persist over time and have a highly significant $R^2$. In the same vein, income volatility tends to have an inverse relationship with predictability of earnings. This therefore suggests that the more volatile earnings are, the more difficult it becomes to estimate the future earnings potential of an entity. Dichev and Tang (2008) posit that volatile earnings tend to be extreme in their nature, because of the effect of transitory items. This is however consistent with the transitory effects of unrealized gains and losses, fair value accounting comes with; by their nature, unrealized gain and losses revers quickly over time. This therefore makes earnings of companies that embrace fair valuation volatile.

From the empirical angle, Barth et al (1995) investigates the effect of fair value accounting on banks’ earnings volatility, regulatory capital and the contractual cash flows in the US. The study finds that fair value based earnings are more volatile than the historical cost earnings but share prices does not reflect the incremental volatility and that banks violate capital regulatory requirements more frequent under fair value than historical cost accounting.

Dichev and Tang (2008) investigate the link between earnings volatility and its predictability in fair value reporting environment. The study used financial data for a range of period 1984 to 2004, collected from Computstat data file. It finds that earnings volatility brings a significant improvement in predicting both short term and long term earnings which also allows for early identification of systematic errors. It also reveals that earnings volatility provides a reliable discrimination on relative earnings persistence and predictability in years ahead.

Duh, Hsu and Alves (2012) examine the impact of adopting IAS 39 in some non-US Commercial banks adopting IFRS, cross listed in the US. The study showed that there was increased income volatility in some of the IFRS adopting firms from 2005 onward. Even though the fair value option and hedge accounting under the IAS 39, were designed to reduce mixed measurement volatility and to increase sensitivity of firms risk measures. The finding could be expected because of wide discretions in the use of fair value measurements are mostly based on value judgment. In an attempt to make a distinction on the class of income to which volatility is more pronounced, Khan and Bradbury (2014) investigates the volatility and risk relevance of comprehensive income relative to the net income for a sample of non-
financial firms, covering a period of 5 years (2005-2010). The study reveals that comprehensive income is more volatile than net income; this is because the former is associated with market based measures such as the volatility of stock returns and beta. The study concludes by questioning the desirability of reporting comprehensive income in a single statement of financial performance.

Sun (2014) in his response to this subject matter observes that, debt markets and stock markets are directly connected; as such fair value is associated with the overall market volatility; which is composed of earnings volatility, stock price volatility and government debt volatility. The study shows a mathematically macro relationship between government debt volatility, stock market and earning volatility. It asserts that fair value could be the messenger that introduces volatility in to the financial system.

Yonetani and Katsuo (1998) examine how fair value accounting affects earnings volatility and whether such incremental volatility is reflected on share prices of Japanese banks. The study finds that earnings based on fair value measurement are more volatile than historically generated earnings. However there was no strong evidence to establish the assertions that investors demand excessive premium because of volatility associated with fair value earnings. The findings of study are consistent with that of Barth, Landsman and Wahlen (1995) where the pursued similar objectives in the US. This is an indication that that irrespective of the legal, reporting and geographical environment, earnings generated through fair value accounting are bound to be more volatile than the historically generated earnings.

### 3.0 Methodology and Design

The paper uses correlational design to achieve its objective. This is done by comparing the results of the two reporting framework, the historical model and the fair value model, with a view to examining the extent of volatility in individual model as well as the extent of correlation between the two.

Sample for the study was drawn from the Population 20 listed deposit money banks (DMBs) from the Nigerian stock exchange, as at 31st December, 2014. A sample of 15 banks was arrived after applying certain filtering criteria that include data availability for the period covered by the study. Secondly, a firm must have been consistently quoted on the Nigerian Stock Exchange (NSE). The paper uses secondary data covering a period of 10 years for the analysis. The 10 years period covers 2007-2014. The period coverage is divided into pre IFRS adoption and post IFRS adoption periods; with each covering 5 bank years observation. The pre adoption period covers 2007-2011 while the post adoption period covers 2010-2014; with 2010 and 2011 being reinstated in line with IFRS 1. The study uses multiple regression analysis on the platform of the Olhson (1995), price valuation Model. The paper uses decision usefulness theory is used to underpin the study.

A univariate analysis is conducted in this paper by using the Independent t-test, to compare the mean differences of the pre and post fair value adoptions earnings. On this basis, the model with higher volatility would be exposed using the t-value significance as would be provided by the model. This approach is consistent with Fietchtter (2011) and Azira (2012). The model for testing hypothesis 2 is therefore presented as follows:

\[ \sigma_{\text{EAR, before}} = \text{STDV} \left[ \frac{\text{EBIT}_{it}}{\text{Average Total Assets}_{it}} \right] \quad (1) \]

\[ t_0 = 2007 \text{ to } t_5 = 2011 \]

\[ \sigma_{\text{EAR, after}} = \text{STDV} \left[ \frac{\text{EBIT}_{it}}{\text{Average Total Assets}_{it}} \right] \quad (2) \]

\[ t_0 = 2010 \text{ to } t_5 = 2014 \]

Where:

\( \sigma_{\text{ear}} \) = Standard Deviation of income for firm “i at year t” measured as earnings before interest, provisions and taxes (EBIT) scaled by the average total assets of firm “i” at time “t”.

\[ \text{EBIT}_{it} = \text{Earnings Before Interest, Provision and Taxes} \]

\[ \text{Average Total Assets}_{it} = \text{Average Total Assets} \]
4.0 Results and Discussions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err</th>
<th>Std.Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAR Before Fair Value</td>
<td>75</td>
<td>0.0347876</td>
<td>0.0044868</td>
<td>0.0388566</td>
</tr>
<tr>
<td>EAR After Fair Value</td>
<td>75</td>
<td>0.0291921</td>
<td>0.0035922</td>
<td>0.0311096</td>
</tr>
<tr>
<td>Combined</td>
<td>150</td>
<td>0.0319899</td>
<td>0.0028733</td>
<td>0.0351908</td>
</tr>
</tbody>
</table>

| Diff                   |     | 0.0055955 | 0.0057476|

H0: diff = 0  Ha: mean (diff)<0  Ha:mean (diff) !=0  Ha: mean (diff)>0

\[ t = 0.9735 \]

Pr (T<t) = 0.1659  Pr (|T| > |t|) = 0.3319  Pr (T>t) = 0.8341

Source: STATA 10.0 Independent t-test Result.

The Table above presents the hypothesis test of the study. The one-tail hypothesis stated in null form argues that “Fair value accounting does not significantly enhance income volatility relative to the pre IFRS adoption period”. Independent t-test, test the null hypothesis that there is no significant difference between the mean of a two reporting periods. The result of the test shows Earnings before the adoption of fair value accounting concept, at a mean of 0.034 with a standard deviation of 0.038 from the mean. While after the adoption, the earnings report a mean of 0.029 with a standard deviation of 0.038. The standard deviation of the mean after adoption is lower by 0.77%. The T-test value stands at 0.9735 while the corresponding P-Value for one-tail is at 0.8341, thus higher than the acceptable significance level of 0.05. Therefore, the alternate hypothesis could not be accepted. This implies that the variability in earnings under the historical model is not significantly different from the variability under the fair value model. On the basis of this we fail to reject the null hypothesis of non-significant difference.

The paper reveals that the income obtained through the fair value model is as volatile as that of the historical cost model. Implied that distributions of income from its average over a year, under the historical model is not different from that of the fair value model. This is a striking finding, which is not as expected. The finding could be due to the mandatory adoption of the International financial Reporting Standards in the country, with a transiting deadline of January, 2012 for the sector. Thus, there was unpreparedness on the part of the reporting entities coupled with lack of active markets for financial instruments and other observable inputs necessary for fair valuation. It could suggest that the banks reinstate their financial statements to reflect the new reporting regime in order to meet up with the deadline and to avoid cost of sanctions and penalties.

5.0 Conclusion

On Income volatility, the findings imply that incomes of the deposit money banks remain consistent irrespective of the model adopted. This is contrary to expectation, and could suggest transitional problems encountered by the banks as result of the mandatory adoption of the IFRS. Implied that the income statement might be merely reinstated by the firms, without recourse to fair value observable inputs; due to possibly its non-availability at the time of transition.

The Reporting Entities on their part should ensure strict adherence to the provisions of the standard, avoid over estimation and opportunistic management discretion on silent reporting issues. This is to achieve the objective of General Purpose Financial Statements, for all financial information users and also to slow down the possible effect of income volatility across reporting models.
References


International Accounting Standard, No. 39


CORPORATE GOVERNANCE MECHANISM AND CASH CONVERSION CYCLE MANAGEMENT OF LISTED CONGLOMERATES IN NIGERIA

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Abstract
This study examines the impact of Corporate Governance Mechanism on Cash Conversion Cycle Management of listed conglomerates in Nigeria over the period 2004-2013. Sample of five firms out of six listed conglomerates on the Nigerian Stock Exchange was studied. The study makes use of secondary data generated from Annual Reports and Accounts of the sampled firms and the Nigerian Stock Exchange Fact book. The data was analyzed by means of descriptive statistics, correlation and regression analysis using STATA package. A Panel Data Regression Technique was employed since the data has both time series and cross sectional characteristics. Therefore, pooled OLS, fixed effect and random effect were applied to estimate the model. It is revealed that board size and board composition had significant positive impact on Cash Conversion Cycle while Audit Committee Size showed a negative and insignificant impact on Cash Conversion Cycle. The study concluded that corporate governance plays important role in improving Cash Conversion Cycle management. It is therefore recommended that optimum board size (mean of eight) is necessary for effective management of Cash Conversion Cycle, the majority of board composition should comprise of non-executive and independent directors for effective monitoring of working capital management. Also, in line with the provision of Companies and Allied Matters Acts (CAMA) 90, Audit Committee Sizes should consist of maximum members of six and should consist of equal number of directors and representatives of the shareholders of the company, because of the inverse relationship that exists with the Cash Conversion Cycle

Keywords: corporate governance, cash conversion cycle, Management, conglomerates and Nigeria

1.0 Introduction
The financial scandals that lead to corporate failure especially in the developed economy like the USA and the UK such as the ones at Enron and WorldCom, have affected the developing economy like Nigeria (financial failure at Cadbury Nigeria plc. 2005) and brought about the efficacy of Corporate Governance (CG) as effective mechanism for curtailing the problems of financial failure (George & Owoyemi, 2012). Therefore, CG is intended to safeguard the interests of the principals from agents. Nonetheless, strong CG does not only establish and maintain good corporate culture that inspires the management to make decisions that maximize the wealth of shareholders, but it also ensures efficient management of a firm’s resources (Miringu & Muoria, 2011). Poor CG was identified as one of the major factors in virtually all known instances of firms’ distress in Nigeria (Awoyemi, 2009). In this regard, Achchuthan and Kajananthan (2013) argued that CG practices are strategies which
are formulated in order to meet the short, medium and long term objectives of a firm as well as those of the shareholders. As a result, Working Capital Management Efficiency (WCME) becomes an important mechanism for meeting the short term objectives of a firm.

Efficient Working Capital Management involves controlling and planning of current assets and current liabilities in such a way that avoids excessive or insufficient investments in short term assets (Sen, Koksai & Oruc, 2011). Cash conversion cycle (CCC hereafter) is considered as key measure to determine the efficiency in working capital management. Cash conversion cycle for a firm is the period during which money is transited to goods and again to money (Raheman and Nasar, 2007). According to Achchuthan and Kajananthan (2013) cash conversion cycle (CCC) is taken as the most suitable measure of WCME. Vural, Sokmen & Cetenak (2012) affirm that CCC is the most popular measurement of WCME. CCC refers to the period of time during which a firm changes its money into goods and the goods to money.

The Corporate Governance Mechanism (CGM) such as the Board Size (BS), Board Composition (BC) and Audit Committee Size (ACS) play important roles in the Management of Cash Conversion Cycle (Gill & Bigger 2013 and Kamau & Basweti, 2013). In this perspective, Cash Conversion Cycle is considered as one of the most important functions of Corporate Management (Achchuthan & Kajananthan, 2013). Therefore, efficient Working Capital Management proxied by Cash Conversion Cycle (CCC) through the CG policies will makes firms under Conglomerate industry to be successful. In view of this, firms should take actions to obtain the best level of efficiency in managing working capital through CG mechanisms.

Companies listed on the Nigerian Stock Market are categorized into many sectors, but the area of interest to the researchers is the Conglomerates sector. A conglomerate is a combination of two or more corporations engaged in entirely different businesses that fall under one corporate group, usually involving a parent company and many subsidiaries. In most cases, a conglomerate is a multi-industry company, which is often large and multinational. The decision to conduct this study on Conglomerates sector is based on the fact that Conglomerates sector is the sixth largest industry in Nigeria after financials services, industrial goods, consumers’ goods, oil and gas, construction and real estate with total market capitalization of ₦153.79 Billion (NSE fact book, 2013). Notwithstanding the tactical importance of the industry to the economy, there is insufficient study in the industry. In the same vein, CCC management is vital especially for conglomerates, where its assets are composed of current assets and liabilities. This is because CCC directly affects the profitability and liquidity of firms. Effective CG serves as a check on the management of the firm’s resources (Raheman & Nasr 2007). Based on the literature reviewed, it is revealed that most of studies conducted on the impact of CG on CCC are in Asia, Europe and America, very few were conducted in Africa and with a little certainty whether such study has been conducted in the context of Nigerian conglomerates that covers the period 2004-2013. This study is therefore significant because of its uniqueness, as it is on the aspects not widely covered by researchers. Thus the aim of this study is to examine the impact of CGM (proxied by Board size, Board composition and Audit committee size) on Cash Conversion Cycle (CCC) of listed conglomerates in Nigeria. Therefore, this study examined the impact of CGM on CCC of listed conglomerates in Nigeria. In view of this, the findings of the study are expected to be of significant to policy makers. For instance, it would provide policy makers (Government) with an insight on how to design targeted policies and programs that would actively stimulate the growth and minimize the CCC for effective sustainability of working capital management in Conglomerates Industry in Nigeria. The study is structured into five sections with a view to determine the impact of CGM on CCC of listed conglomerates in Nigeria.
2.0 Literature Review

The Concept Of Corporate Governance

The origin of CG is dated back to the ancient period, when ancient people assigned some selected individual to supervise the activities of the members of a community as to ensure that social activities and behavioral traits were in conformity with the approved traditional norms and values (Oso & Semiu, 2012). The term “governance” is derived from the word “gubernare” which means “to rule or steer”. The term was used as a normative framework for exercise of power and acceptance of accountability used in the running of kingdoms, regions and towns. However, CG is now an international topic due to the influence of globalization in both developed and developing countries.

There is no universally accepted definition of CG. The concept is thus defined, perceived and explain by different Scholars the world over. The emergence of various definitions is influenced by many factors: relative power of owners, managers and stakeholders. The concept is defined by Velnampy (2013) as, putting in place the structure, processes and mechanism that ensure that the firm is being directed and managed in a way that enhances long term shareholders value through accountability of managers and enhancing organizational performance”. It deals with the mechanisms by which stakeholders of a corporation exercise control over corporate insiders and management such that their interests are protected. The stakeholders of a corporation includes; equity holders, creditors and other claimants who supply capital, as well as other stakeholders such as employees, consumers, suppliers and the government. The professional managers and entrepreneurs are collectively refers to as Managers (John & Senbet, 1997).

The task of defining the concept of CG is vast, yet a clear definition of the concept is very essential in order to create the needed awareness and to achieve good practice in Nigeria and beyond. Jayashree (2006) cited in Oso and Semiu (2012) defines CG when used in the context of business organization as “a system of making directors accountable to shareholders for effective management of the companies in the best interest of the company and the shareholders along with concern for ethics and values. It is a management of companies through the board of directors that hinges on complete transparency, integrity and accountability of management.”

CG broadly refers to the mechanisms, processes and relations by which corporations are controlled and directed. Prasad, (2006) defined CG as the relationship that exists between different stakeholders in a firm and it defines the performance as well as the direction of company. It is the internal arrangements that define the relationship between managers and owners of a corporation. Lashgari, (2012) states that CG should bond managers to pursue the goals of the shareholders and ensure that they fulfill the interests of the owners. It is also been defined by Keasey, Thompson and Wright, (2005) to include the structures, processes, cultures and systems that engender the successful operation of the organizations. CG is also seen as the whole set of measures taken within the social entity that is an enterprise so as to favour the economic agents in order to take part in the productive process. It is also intended to generate some organizational surplus, and set up a fair distribution between the partners, taking into consideration what they have brought to the organization.

Cash conversion cycle

Cash conversion cycle for a firm is the period during which money is transited to goods and again to money (Raheman and Nasar, 2007). According to Achchuthan and Kajananthan (2013), cash conversion cycle (CCC) is taken as the most suitable measure of working capital management efficiency. It measures the number of days between actual cash expenditures on purchase of raw materials and actual cash receipts from the sale of goods or
services (Bhutto, Abbas, Rehman & Shah, 2011). It also measures the time between the day the purchases are paid to the suppliers and the day remittance is received from the customer i.e. it combines the cycle time of inventories, accounts receivable and accounts payable. Vural, Sokmen and Cetenak (2012) observed that, if the time lag between the sale of finished goods and the receipt of cash is longer, it means greater investment in the components of working capital which causes the need for greater finance, thus, lowering profitability. It is desirable to keep the cycle as short as possible as it increases the effectiveness of working capital management.

Corporate governance and Cash Conversion Cycle

It has been established empirically that cash conversion cycle (CCC) has significant negative relationship with profitability. This is evidenced in the works of (Raheman, et al, 2010; Mathuva, 2010). The traditional measure of efficient working capital management is cash conversion cycle which emphasized on the principles of acceleration of receivables collections as quickly as possible and slows down of disbursement as much as possible. According to Richards and Laughlin (1980) cited in Tsagem, Aripin and Ishak, (2014), cash conversion cycle is a standard measure for assessing how well a firm is managing its working capital. They posit that shortening the length of cash conversion cycle increases firm’s profitability. Hence, relationship exists between firm’s CCC length and its profitability, as firm’s cash conversion cycle reduces, its profitability increases and vice versa (Lazaridakis & Tryfonidis, 2006) and consequently result to additional financing. CCC is described as the time lag between firm’s expenditure on the purchase of inventory and the collection of cash from sales of finished goods (Deloof, 2003). The study of Gill and Bigger, (2013) revealed that a negative relationship exist between board size, CEO duality, audit committee, sales growth, firm size and cash conversion cycle. This is further confirmed by the study of Kajanathan and Achchuthan (2013) that, there is no significant impact of CG practices on cash conversion cycle.

Empirical Studies on Corporate Governance Mechanism (CGM) and Cash Conversion Cycle (CCC)

A review of literature reveals that there are few studies that link CGM and CCC (Rehman and Nasr 2007; Valipour, Moradi and Farsi 2012; Gill and Biger, 2013; Achchuthan and Kajanathan, 2013; Kamau and Basweti, 2013; Karani, 2013; Gill, Bigger and Obradovich, 2015).

Rehman and Nasr (2007) conducted a research on the relationship between profitability and cash conversion cycle in Pakistani companies. Ninety four (94) companies were studied between 1999 and 2004. The study used cash conversion cycle, inventory turnover period, the bank creditors, the claims the current ratio, operating earnings, company size, debt ratio and the ratio of the financial assets. The study used Pearson Coefficient and Regression Analysis for the analysis of the collected data in the study. Findings of the study revealed that profitability and company size had a negative significant effect on cash conversion cycle. Furthermore, the study showed a significant positive relation between company size and profitability.

Valipour, Moradi and Farsi (2012) studied the effect of company characteristics on the working capital management on eighty three (83) listed firms in Tehran for the period 2001-2010. The study used Cash Conversion Cycle (CCC), Inventory (INV), Accounts Payable (AP), and Accounts Receivables (AR) as proxy for working capital management (dependent Variables). While return on assets (ROA), operating cash flow, sales growth, current ratio and quick ratio were used as proxy of company characteristics. Multiple Regressions and Pearson’s Correlation were employed to test the hypothesis. The results of
the analysis showed a mixed effect of company characteristics on the company’s working capital management.

Gill and Biger (2013) investigated the impact of CG on WCME of 180 American manufacturing firms listed on the New York Stock Exchange (NYSE) for the period of three years (2009-2011). The variables used were Chief Executive Officer (CEO) tenure, CEO duality, board size and audit committee as proxies for independent variable, while Accounts Receivable (AR), Inventory (INV), Accounts Payable (AP), Cash Conversion Cycle (CCC), Cash Holding (CH), Current Ratio (CR) and Cash Conversion Efficiency as proxies for dependent variable. Sales growth, internationalization of firm, firm size and firm performance are used as control variables. Co-relational research design was applied. The results showed that Account Receivable Management Efficiency was positively correlated with the CEO duality, Accounts Payable Management Efficiency was also positively correlated with the CEO tenure, CEO duality, board size and audit committee, cash management efficiency was positively correlated with CEO tenure, board size and audit committee and current ratio management efficiency was positively correlated with CEO tenure but negatively correlated with board size and audit committee. The study concluded that CG played a vital role in improving the efficiency of working capital management.

Achchuthan and Kajananthan (2013) employed independent sample one-way ANOVA (f-test) and independent sample t-test to find out the significant difference between CG practices on WCME in twenty five (25) listed manufacturing firms in Colombo Stock Exchange for the period 2007-2011. The results revealed that there was no significant mean different between the level of WCME (proxy by Accounts receivable, Accounts payable, inventory and cash conversion cycle) among CG practices as Board committee, Board meetings and proportion of non-executive directors.

Kamau and Basweti (2013), studied on the relationship between CG and WCME on forty two listed firms at the Nairobi Securities Exchange from 2006-2012. The independent variables used in the study were; CEO duality, board meetings, CEO tenure, board committees and board size. While the dependent variables, WCME, was measured by WCME index. Independent one-way ANOVA test and independent t-test were used to determine the level of significance. The results indicated that there was a positive, but a weak correlation between board size and WCME and there was no statistical significant relationship between board size and the level of efficiency in working capital management. The results further discovered that CEO tenure had a weak positive relationship with the levels of WCME. The results from the Multiple Regression Analysis indicated that there was a positive but a weak relationship between CG and WCME.

Kajananthan and Achchuthan (2013) conducted a study on CG practices and its impact on working capital management in Sri Lanka involving twenty five listed manufacturing firms in Colombo Stock Exchange for the period of four years (2007-2011). Using Board leadership structure, board committee, board size and board meetings as proxies for CG, and also cash conversion cycle, current assets to total assets, current liability to total liability as proxies for WCME as dependent variable of the study, and Multiple Regression Analysis as tool for the analysis. The study revealed that cash conversion cycle and the decision on the current assets to total assets are influenced by the CG practices.

In summary, the limited availability of literature indicates that corporate governance mechanism influences the cash conversion cycle. Hence, it is hypothesized:

3.0 Methodology

This study was conducted based on historical panel data, covering the period from 2004 to 2013. The data was analyzed with a view to establishing a pattern of relationship between the study variables. This makes the ex-post factor research design suitable for the study. The population of the study consists of the six conglomerate companies listed on the
Nigerian Stock Exchange at December, 2013. Table 1 below presents the six companies that make up the population of the study

### Table 1 Population of the Study

<table>
<thead>
<tr>
<th>S/NO</th>
<th>NAME OF COMPANY</th>
<th>DATE INCORPORATED</th>
<th>DATE LISTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A.G Leventis Nig. Plc</td>
<td>1958</td>
<td>1978</td>
</tr>
<tr>
<td>2</td>
<td>ChellaramsPlc</td>
<td>1947</td>
<td>1977</td>
</tr>
<tr>
<td>3</td>
<td>John HoltPlc</td>
<td>1961</td>
<td>1974</td>
</tr>
<tr>
<td>4</td>
<td>SCOA Nig.Plc</td>
<td>1969</td>
<td>1977</td>
</tr>
<tr>
<td>5</td>
<td>Transnational Corporation of Nig.Plc</td>
<td>2004</td>
<td>2006</td>
</tr>
<tr>
<td>6</td>
<td>UAC of Nig.Plc</td>
<td>1931</td>
<td>1974</td>
</tr>
</tbody>
</table>


#### 3.1 Sample Size

Availability of relevant data is very important for studies of this nature. Therefore for any company in table 1 to belong to the sample size, the researchers adopt some filters so as to have accurate analysis. First, only those firms who have been in operation from 2004 to 2013 are considered as the appropriate sample for the study. Second, the selected firm must be listed without been delisted during the period. Based on these filters applied, Transnational Corporation was eliminated, because it was listed in 2006 thereby not fulfilling the stated time frame condition. Therefore five firms out of the six listed firms in Nigerian conglomerates are used as the sample size.

#### 3.2 Method of Data Analysis

Various statistical methods have been utilized to determine the impact of CGM on CCC of Listed conglomerates in Nigeria. Descriptive, Correlation and Regression Analysis via panel data are used as adopted by Samaila (2014), Karani (2013), Tsagem, Aripin and Ishak, (2014) and Gill, Bigger & Obradovich, 2015). Therefore, pooled Ordinary Least Square (OLS), Fixed Effect Model (FEM) and Random Effect Model (REM) were employed for estimating the regression equation using STATA version 12 statistical package. For making sure that the linear regression assumption was not violated, multicollinearity and heteroscedasticity test were carried out. To check for multicollinearity, the most widely-used diagnostic for variance inflation factor (VIF) was used. The VIF estimates how much the variance of a coefficient is inflated because of linear dependence with other predictors. Normality test was conducted using normal probability plot to ensure robustness. Further the study uses Durbin-Wu- Hausman test to determine the choice between fixed effect and random effect.
Table 2 Proxy variables and their measurement

<table>
<thead>
<tr>
<th>PROXY VARIABLES</th>
<th>MEASUREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent (CCC)</td>
<td></td>
</tr>
<tr>
<td>CCC</td>
<td>(Accounts receivables Period + Inventory Conversion Period – Account Payable Period)</td>
</tr>
<tr>
<td>Independent (CGM)</td>
<td></td>
</tr>
<tr>
<td>BS</td>
<td>The total number of the board of directors</td>
</tr>
<tr>
<td>BC</td>
<td>The ratio of non-executive directors to total directors</td>
</tr>
<tr>
<td>ACS</td>
<td>Number of audit committee members</td>
</tr>
<tr>
<td>Control</td>
<td></td>
</tr>
<tr>
<td>FS</td>
<td>Log of total assets</td>
</tr>
<tr>
<td>AGE</td>
<td>number of years passed since listed</td>
</tr>
</tbody>
</table>

Generated by the researcher, 2015 the formulas are adopted from Kurfi, (2006)

The following models as used by Gill and Bigger, (2013), Karani, (2013) and Gill, Bigger & Obradovich, (2015) were adopted with little modification. The models were used to estimate the impact of the independent variables on the dependent variables.

\[ CCC = \alpha + \beta_1 BS_{it} + \beta_2 BC_{it} + \beta_3 ACS_{it} + \beta_4 FS_{it} + \beta_5 AGE_{it} + \varepsilon_{it} \]

Where;
CCC = Cash Conversion Cycle, BS = Board size, BC = Board Composition, ACS = Audit committee size, FS = Firm Size, AGE = age since listed, \( \beta_1 - \beta_5 \) = Partial derivatives or gradient of the independent variables, \( \alpha \) = Overall CCC intercept (i.e. value of CCC when the values of all other independent variables are zero), \( \varepsilon \) = Error term which account for other possible factors that could influence CCC that are not captured in the model, \( i \) = Firm, \( t \) = time

4.0 Data Analysis and Discussion of Results

This section presents the results of the analysis of the collected data from the Annual Report and Accounts of the sampled firms. The descriptive statistics, correlation and regression are presented below.

Tests for Model Validation and Fitness

For a regression results to be accurate, valid and relied upon, the results obtained must be free from an abnormality, heteroscedasticity and multi-collinearity. To attain this, the following tests were carried out to ensure robustness.

Normality Test

Normality Test was conducted to check for data distribution patterns of the research data and Normal Probability Plot was used for the purpose. The points on the P-Plot forms a straight line and do not significantly depart from the line meaning that normality assumption is valid. The results of the tests therefore suggest that the data of the dependent variable did not differ significantly from a normal distribution.
Heteroscedasticity Test

To check for variability of error term among the independent variable of the model, heteroscedasticity test was carried out, so as to know whether the variability is constant or not. The test is necessary to ensure that the regression fits all the values of the independent variables and this is possible only if the error terms do not vary with the independent variable and therefore are random in nature. A significant P-value of less than 5% signifies presence of heteroscedasticity meaning that the variation of the term errors is not constant which would affect inferences in respect of beta coefficient, coefficient of determination (R²), t-statistics and F-statistics of the study. While a P-value of greater than 5% indicates absence of heteroscedasticity and existence of homoscedasticity meaning that variance of the error term is constant for all values of independent variable (Samaila, 2014).

Multicollinearity Test

These tests assist in checking the validity of the study model. Multicollinearity is a statistical marvel in which two or more independent variables in a Multiple Regression Model are highly interrelated which is capable of misleading the outcome of the study. In this situation, the coefficient estimates may change erratically in response to small changes in the model or the data. Therefore, the commonly used technique in determining the presence of multicollinearity is Variance Inflation Factor (VIF). The rule is that VIF of more than 10 indicates the presence of Multicollinearity (Kurawa and Kabara, 2014). The result from the Regression Model showed that the Variance Inflation Factor (VIF) of all the models is less than 10 ranging from 1.45 - 2.22 which indicates absence of serious Multicollinearity.

Descriptive Statistics Result

Table 4.1: Descriptive statistics result

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCC</td>
<td>102.9771</td>
<td>82.61877</td>
<td>2.1945</td>
<td>332.716</td>
</tr>
<tr>
<td>BS</td>
<td>8.32</td>
<td>1.557602</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>BC</td>
<td>0.6953558</td>
<td>0.1164792</td>
<td>0.4</td>
<td>0.909091</td>
</tr>
<tr>
<td>ACS</td>
<td>5.64</td>
<td>0.7494215</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>FS</td>
<td>6.923492</td>
<td>0.277085</td>
<td>6.44998</td>
<td>7.39937</td>
</tr>
<tr>
<td>AGE</td>
<td>32.5</td>
<td>3.357903</td>
<td>26</td>
<td>39</td>
</tr>
</tbody>
</table>

Computed using Stata 12.0 from Annual Reports and Accounts of the sampled Firms 2004-2013

Table 4.1 Further indicates that an average board size was 8.32 between the minimum of 5 and maximum of 11 members. While the mean number of board composition was 69% which indicates that members of the boards for the period consisted of non-executive directors and that implied that the board of directors comprised mostly of non-executive directors which was an indication of good representation. Also, audit committee members on the average consisted of within a minimum of 4 and maximum of 6 members.
The control variables used in the study showed the mean of Firm size is 6.92 and a standard deviation of 0.277 indicates a considerable level of dispersion in size of the industry during study period. The minimum value of 6.45 and the maximum value of 7.33 indicate that the firms in conglomerates did not differ significantly in size. The age of firms measured as age of listing has a mean value of 32.5 and a standard deviation of 3.36 respectively. The minimum value and maximum value of firm age before 2004 were 26 and 39. This means that some firms had been listed on the floor of Nigerian stock exchange as far back as the last 39 years.

**Correlation Result**

The Correlation Matrix Tables below shows the relationship between all pairs of variables in the Regression Model.

**Table 4.2: Correlation Matrix CG and Cash Conversion Cycle- Model 4**

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>CCC</th>
<th>BS</th>
<th>BC</th>
<th>ACS</th>
<th>FS</th>
<th>AGE</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCC</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BS</td>
<td>0.3492</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.08</td>
</tr>
<tr>
<td>BC</td>
<td>0.4138</td>
<td>0.5323</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1.69</td>
</tr>
<tr>
<td>ACS</td>
<td>0.1951</td>
<td>0.6252</td>
<td>0.3729</td>
<td>1</td>
<td></td>
<td></td>
<td>2.22</td>
</tr>
<tr>
<td>FS</td>
<td>-0.4285</td>
<td>0.1412</td>
<td>-0.1050</td>
<td>0.3015</td>
<td>1</td>
<td></td>
<td>1.45</td>
</tr>
<tr>
<td>AGE</td>
<td>-0.0572</td>
<td>-0.0507</td>
<td>-0.3101</td>
<td>0.3244</td>
<td>0.5270</td>
<td>1</td>
<td>1.88</td>
</tr>
</tbody>
</table>

Computed using Stata 12.0 from Annual Reports and Accounts of the sampled Firms 2004-2013

The above Correlation Matrix tables show correlation coefficients on the relationship between the dependent variable (CCC) and explanatory variables (Board Size, Board Composition, Audit Committee Size, Firm Size and Age). Table 4.2 shows a positive correlation between independent variables (BS, BC, and ACS) and the dependent variables (CCC) but negative correlation between the control variables (FS and AGE) and dependent variable (CCC).

These results indicated a positive relationship between corporate governance mechanism and CCC which differed significantly with the result of Achchuthan and Kajananthan, (2013) that discovered no significant mean different between the level of working capital management efficiency and corporate governance practices. However it is consistent with the findings of Karani (2013), Mathuva (2010), Reheman et al (2010), Gill & Bigger (2013), Deloof (2003), and Ajao & Nkechinyere (2012).

**Regression Results**

Table 4.3 shows the Regression result to examine the impact of corporate governance mechanism on the cash conversion cycle of the sampled firms.
From Table 4.3, the model summary for the analysis becomes:

\[ CCC = 825.31 + 17.79BS_{it} + 234.62BC_{it} - 9.47ACS_{it} - 191.29FS_{it} + 10.54AGE_{it} + \epsilon_{it} \]

In appraising the Model, based on the regression result in Table 4.3, The OLS regression does not provide efficient estimates and to check whether the variability of error terms is constant or not, a test for heteroscedasticity was conducted. The Heteroscedasticity test performed revealed absence of heteroskedasticity because P-value is greater than 5% indicates absence of heteroscedasticity and existence of homoscedasticity meaning that variance of the error term is constant for all values of independent variable. Table 4.3 shows the regression results of Ordinary Least Square (OLS), Random Effects (RE) and Fixed Effects (FE). The dependent variable used in this model is Cash Conversion Cycle (CCC). Although the three results are shown, analysis and interpretation would only be made on the OLS and RE as the Hausman test suggests RE is more efficient (Appendix A)

The OLS regression results displayed in table 4.3 reveal the cumulative R–square = 0.4889 which is the multiple coefficient of determination gives the proportion or percentage of the total variation in the dependent variable explained by the explanatory variables. Hence, it signifies that 48.89% of total variation in CCC of Nigerian listed conglomerates firms is caused by board size, board composition, audit committee size, firm size and age of the firm.
Similarly, the result of the F-statistics value of 8.42 implies that the model is fit and is significant at 1%. Therefore, the model is fit.

The regression results as shown in table 4.3 indicates that board size, board composition and age of the firms in both OLS and RE has positive relationship and statistically significant at 5% level of significance with CCC. This implies that as the number of board size and board composition of the selected firms increases, the cash conversion cycle increases which is not in favor of Nigerian conglomerates, also the older the firm the more efficient it manages cash conversion cycle. However the results reveal negative impact of audit committee size on cash conversion cycle management but statistically not significant. Also inverse and significant relationship exists between size of the firm and cash conversion cycle management, this inverse relationship signifies favorable impact to Nigerian conglomerates. As members of audit committee increase, it contribute in shortening the cash conversion cycle which favors the firms because a shorter cash conversion cycle improves the efficiency of working capital management and consequently, the financial health of the firms. The results show that, board size, board composition and age of the firm have positive and significant impact on cash conversion cycle. While firm size and audit committee size has a negative and insignificant impact on cash conversion cycle management (OLS, table 4.3). These results contradict the findings of Achchuthan and Kajananthan (2013); Kamau and Basweti (2013) who found that corporate governance are statistically insignificant in explaining changes in the level of WCME. However the results are in consistent with the findings of Karani (2013); Gill and Bigger (2013), and Gill, Bigger and Obradovich, (2015). Therefore, the hypothesis accepted, meaning that corporate governance mechanism has significant influence on cash conversion cycle management.

4.0 Conclusion and Recommendations

On the basis of the reviewed extant literature and the findings of the study, results indicate that all the corporate governance mechanism are positively correlated with the cash conversion cycle and regression results also reveals that Board size, board composition and age of the firms in both OLS and RE results reveal a positive and statistically significant relationship at 5% level of significance with cash conversion cycle. Audit committee size reveals a negative impact on cash conversion cycle management but statistically not significant. The study concluded that Corporate Governance Mechanism influences Cash Conversion Cycle Management of listed Nigerian Conglomerates.

Based on the conclusions of this study, the study recommends that Nigerian conglomerates owners/managers should ensure that audit committee size consist of equal number of board of directors from members and management and should maintain a maximum of six as required by Companies and Allied Matters Act (CAMA) 1990. This is because increase in audit committee size, lead to shorter cash conversion cycle and subsequently, improve efficiency of working capital management. And the industry should maintain a maximum board size of eight as shown in the descriptive statistics result. Because larger board size does not favor Nigerian conglomerates as increase in board size lead to increase in cash conversion cycle.
References:


MODELLING THE PRICE RELATIONSHIP BETWEEN CRUDE OIL AND FOOD IN NIGERIA

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ABSTRACT

This paper examines the relationship between world crude oil price and food price in Nigeria using the Vector Autoregression Model Approach over the period 1995 to 2016. The results show no evidence of long run cointegration relationship between oil price and domestic food price. The Granger causality test indicate that changes in crude oil price has no direct effect on food price and vice-versa. Whilst, findings of the impulse response analysis and variance decomposition show significantly positive impact of oil price shocks on food price, suggesting that increase in oil price contributes to domestic food price inflation in Nigeria. The paper recommend that measures of controlling food price inflation should take into account oil price when making policy decisions. There is also need to implement strong strategies that will improve food self reliance and food security in the country.

Key words: Crude oil price, Food price, Cointegration, Vector Autoregression, Nigeria
JEL: E31; Q40

1. Introduction

The world international agricultural commodities crises of 2006-2008 and 2011-2013 has focused the attention of researchers, governments and policy makers on food price dynamics. Food prices have increased 142 per cent in developing countries and about 38 per cent in the OECD in the last decade (Huppé et al, 2013). In Nigeria, the composite food index (with a weight of 507.3) rose to 51 index point in 2006 after several years of relative stability of 25 index between the years 1995 and 2000. The index increase by 18% year-on-year basis to 88.6 in 2008 and 128 in 2011. It then rose by 0.9 per cent month-on-month to 154.4 in 2013 and reached 168 index points by December 2014. The index point of food inflation was 172.8 with 9.4 year-on-year basis in 2015 and reached 190.51 in May 2016 (CBN, 2016).

A large body of literature have identified some of the major drivers of recent increase in global food prices such as, energy price (see Irz et al 2013, Baffes and Dennis 2013; Abdul-Rahim and Zariyawati, 2010; Arshad and Hameed, 2009, FAO, 2008), high demand for biofuels (see Kristoufek, Janda and Zilberman, 2012; Harri, Nalley and Hudson, 2009), economic growth of developing countries (see Gohin and Chantret, 2010; Udoh and Egwaikhide, 2010) and operations of the financial market and short-term trade policy choices (see Ortiz et al., 2011; Horton, 2012; Abbott and Battisti, 2009) among others. Majority of the recent evidence supported the strong influence of oil prices on food prices because of its tight link with levels of food production, processing and transportation systems (see Johnson, 2008; Braun, 2008; Huppé et al, 2013, Irz et al 2013).

The main objectives of this research is to examine the relationship between world crude oil price and food price in Nigeria. To my knowledge there are few studies that have explored this area of research in Nigeria. This research is important because Dada (2011) pointed out that Nigeria is a country characterized by threat of hunger, where about 70 per cent of the population...
live on less than N100 ($0.7) per day, youth unemployment and high food imports. World Bank (2007) also reported that about 35% to 40% of the population suffered from food insecurity. At the same, the country has neglect agriculture and know rely heavily on oil exploration which contributes about 70% of its revenue generation. Thus, this paper seeks to established whether changes in world oil prices influences domestic food prices in Nigeria over the period 1995 to 2016.

The rest of the article is organized as follows: Section 2 discusses the literature review; Section 3 describes the methodology; Section 4 provides the data description and it properties; Section 5 discusses the empirical results and finally, Section 6 concludes the findings.

2. Literature Review

There are ample studies that have demonstrated the existence of long run relationship between crude oil price and food price. Chen et al. (2010) using an Autoregressive distributed lag (ARDL) model support long run relationship between world oil price and the global grain prices for corn, soybean, and wheat over the period 1983 to 2010. They found that changes in crude oil and other grain prices significantly caused change in each grain price during the third sub-period 2005 to 2008. Abdul-Rahim and Zariyawati (2010) using annual data, showed long-run relationship between world crude oil prices and the prices of rice and soybean oil in Malaysia. Udoh and Egwaikhide (2010) also reported co-movement between international oil price and domestic food price inflation, and a unidirectional causality from oil price to domestic food price in Nigeria. Arshad and Hameed (2009) reported strong evidence of long-run relationship between monthly petroleum and cereal prices, and a unidirectional causality running from petroleum price to cereal prices and not vice-versa. Campiche et al. (2007) applied the Johansen cointegration test to examine the integration between petroleum prices and weekly agricultural commodity prices for corn, sorghum, sugar, soybeans, soybean oil and palm oil over the period 2003 to 2007. They found cointegration between corn and soybean prices only during the sub-period 2006 to 2007. Chaudhuri (2001) showed that oil prices drives the index composed of different commodity prices including (food, metals, and other consumption goods) and it influence the price of other commodities as long as it is used in the production process.

On the other hand, there are some studies that do not support the existence of long run relationship between the oil price and food price. Yu et al. (2006) reported that world crude oil prices have no effect on vegetable oil prices (soybean, rapeseed, sunflower and palm oil). Baumeister and Kilian (2014) found no evidence of relationship between the recent oil price shocks and increase in retail food prices (corn, wheat, soybeans and rice) in U.S. They also found that oil-price driven increases in the cost of food processing, packaging, transportation and distribution is not responsible for higher retail food prices. Dillon and Christopher (2013) found no significant causal relationship between global crude oil and maize prices global market in east African countries. However, they found that global oil prices do strongly affect maize prices at sub-national markets through their impacts on transport fuel prices. Nazlioglu and Soytas (2011) using Toda–Yamamoto causality approach and generalized impulse-response analysis found that agricultural commodity prices (wheat, maize, cotton, soybeans, and sunflower) in Turkey do not significantly react to change in world oil price in both short-and long-run. The authors suggest neutrality of agricultural commodity markets in Turkey to both direct and indirect effects of oil price change. In sum, the review showed that there is mixed conclusion on the relationship between oil prices and food prices.
3. Methodology

The paper used the Johansen (1980) maximum likelihood cointegration approach to investigate the relationship between crude oil price and food price. The Johansen procedure is a multivariate generalization of the Augmented Dickey-Fuller test, based on vector auto regression framework (VAR). The cointegration equations are written as:

\[ cp_t = \beta_1 + \delta_1 fp_t + \varepsilon_1, \]  
\[ fp_t = \beta_2 + \delta_2 cp_t + \varepsilon_2, \]  

where \( cp_t \) and \( fp_t \) represents crude oil price and food price respectively, \( \beta_1 \) and \( \beta_2 \) are constant terms, \( \delta_1 \) and \( \delta_2 \) are cointegrating coefficients, \( \varepsilon_1 \) and \( \varepsilon_2 \) are error terms. The causality relationship between oil price and food price is examined using the Granger (1969) causality approach. The model argued that when two or more variables are cointegrated causality most exist between them in a least one direction, and it may occur even if the variables are otherwise. The model base on VAR can be derived by expanding equation (1) and (2) as:

\[ CP_t = \alpha_1 + \sum_{i=1}^{m} \beta_i FP_{t-1} + \sum_{j=1}^{m} \gamma_j CP_{t-j} + e_{1t}, \]  
\[ FP_t = \alpha_2 + \sum_{i=1}^{m} \theta_i CP_{t-1} + \sum_{j=1}^{m} \delta_j FP_{t-j} + e_{2t}, \]  

where, \( CP_t \) is the crude oil price and \( FP_t \) is the food price. Granger approach test the hypothesis \( H_0: \beta_i = 0 \), \( FP_t \) does not linear Granger cause \( CP_t \), meaning that change in food price is insignificant in explaining change in oil price and vice-versa. Similarly, \( H_0: \theta_i = 0 \), \( CP_t \) does not linear Granger cause \( FP_t \), meaning that change in oil price is insignificant in explaining change in food price and vice-versa. The impulse response function developed by Sims (1980) will be use to trace responses of food price to shocks on world oil prices over the study period. In addition, the variance decomposition will then be estimated to gives the proportion of movement in food price that is cause from its own shock and shocks on world crude oil price (Sim, 1980).

4. Data and its Properties

The paper employs monthly data for world crude oil price and food price (proxy of food CIP index) from January 1995 to May 2016. Data for food price was obtained from the Central Bank of Nigeria Statistical Bulletin (2016) while oil price was source from Energy Information Administration US (EIA). Oil price was deflated with consumer price index (CPI) Nigeria. All prices were transformed into natural logs in order to reduce the problem of heteroskedasticity.

Table 1 shows the summary statistics of the oil price and food price for Nigeria. The results indicate that the standard deviation is larger for food price, negative skewness and excess kurtosis in all the prices. The Jackque-Bera test indicates that the null hypothesis cannot be rejected at the 5% significant level for both the crude oil and food prices series. The Augmented Dickey Fuller (ADF) test results indicate that all the price series contain a unit root at the 5% significant level, implying that they are I (I) process. Figure 1 and 2 plots the monthly food and oil prices respectively from January 1995 to May 2016, showing that the prices series are all characterised with upward and downwards trends. Both prices are highly volatile especially between the years 2000 to 2008 and 2014 to 2016, suggesting that may be domestic food price in Nigeria response to international oil price volatility.
Table 1. Descriptive statistics of crude oil price and food price

<table>
<thead>
<tr>
<th></th>
<th>Crude oil price</th>
<th>Food price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.772862</td>
<td>4.130695</td>
</tr>
<tr>
<td>Median</td>
<td>3.833413</td>
<td>4.203498</td>
</tr>
<tr>
<td>Maximum</td>
<td>4.896944</td>
<td>5.249705</td>
</tr>
<tr>
<td>Minimum</td>
<td>2.429218</td>
<td>2.717340</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.651495</td>
<td>0.668254</td>
</tr>
<tr>
<td>Skewness</td>
<td>-0.135154</td>
<td>-0.011370</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>1.689843</td>
<td>1.781574</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>18.86(0.00)</td>
<td>15.6(0.00)</td>
</tr>
<tr>
<td>ADF</td>
<td>-1.570(0.49)</td>
<td>-1.22(0.66)</td>
</tr>
</tbody>
</table>

Note: Figures in brackets are probability values for unit root test and normality tests. ADF unit root test was conducted with intercept.

5. Empirical Results and Discussion

Since both the oil and food prices series are I (1) as shown by the ADF test in Table 1, the Johansen cointegration test is applied to examine whether there is long run relationship between the two prices. Table 2 presents the results of the Johansen cointegration approach. The test was conducted with an intercept and no trend specified for the cointegrating equations. The optimal lag length of the VAR specification is one (1) selected by Akaike Information criterion (AIC) and majority. The results in panel A and B indicate that both the trace and maximum eigen value statistics cannot reject the null hypothesis of no cointegration between the crude oil and food prices in Nigeria at the 5% level. The results imply that there is no long run relationship between the two prices despite the fact that both are experiencing upward movement. The result is consistent with Baumeister and Kilian (2014) and Nazlioglu and Soytas (2011) but contrasts the findings of Abdul-Rahim and Zariyawati (2010) and Arshad and Hameed (2009). The result suggests that the price of world crude oil and domestic food in Nigeria do not move together in the long run.
Table 2. Johansen Cointegration Test Results

Panel A. Unrestricted cointegration rank test (Trace)

<table>
<thead>
<tr>
<th>Hypothesized</th>
<th>Trace</th>
<th>0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of CE(s)</td>
<td>Eigenvalue</td>
<td>Statistic</td>
</tr>
<tr>
<td>None</td>
<td>0.019926</td>
<td>7.037994</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.008332</td>
<td>2.066669</td>
</tr>
</tbody>
</table>

Note: Trace test indicates no cointegration at the 0.05 level, * denotes rejection of the hypothesis at the 0.05 level, **MacKinnon-Haug-Michelis (1999) p-values

Panel B. Unrestricted cointegration rank test (Maximum Eigenvalue)

<table>
<thead>
<tr>
<th>Hypothesized</th>
<th>Max-Eigen</th>
<th>0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of CE(s)</td>
<td>Eigenvalue</td>
<td>Statistic</td>
</tr>
<tr>
<td>None</td>
<td>0.019926</td>
<td>4.971325</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.008332</td>
<td>2.066669</td>
</tr>
</tbody>
</table>

Note: Max-eigen test indicates no cointegration at the 0.05 level, * denotes rejection of the hypothesis at the 0.05 level, **MacKinnon-Haug-Michelis (1999) p-values

Table 3 presents the estimated results of the causal relationship between oil price and food price using the Granger causality approach. The VAR model specified in equation (3) and (4) was first estimated in level. The optimal lag lengths in the VAR are selected by Akaike Information Criterion (AIC). The results cannot reject the null hypothesis of oil price does not cause food price, likewise, the null hypothesis of food price does not Granger cause oil price cannot be rejected at the 5% significant level. The result implies that neither changes in oil price nor food price cause the other in either direction. This is consistent with results of Dillon and Christopher (2013) and Nazlioglu and Soytas (2011). However, it contradicts the findings of Udoh and Egwaikhide (2010) may be due to the differences in sample period and method of analysis. The findings suggest that investors and speculators cannot use international oil price to forecast local food price. Additionally, the world crude oil price change does not have any significant impact on domestic food price in the country.
Table 3. Estimated Results of the Granger Causality Test

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>Observations</th>
<th>F-Statistic</th>
<th>Prob.</th>
<th>Lag</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP does not Granger Cause CP</td>
<td>250</td>
<td>0.35024</td>
<td>0.705*</td>
<td>2</td>
</tr>
<tr>
<td>CP does not Granger Cause FP</td>
<td>1.35817</td>
<td>0.259*</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

Note: Lag lengths are selected based on Akaike Information Criterion (AIC) and Swartz Information Criterion (SIC). The F-statistics and P-values are shown in parenthesis. * denotes significance at 5% level. CP is the international crude oil price while FP represents the domestic food price in Nigeria.

The research further to estimate the impulse response analysis of food price to world crude oil price shocks in Nigeria results reported in Figure. The results indicate positive and statistically significant response of food price to oil price shocks contradicting the findings of the causality test. The result suggests that shock in oil price has impact on price of food in Nigeria. Additionally, crude oil price shows moderate response to food price shocks over the study period. Both crude oil price and food price response to shocks in themselves. The results based on point estimate shows permanent response of food price to oil price shocks by increase of about 0.08%. Crude oil response show moderate increase by about 0.01% over the study period.

Figure 1

Response of Food Price to Food Price

Response of Food Price to Crude Oil Price
Table 4 reports the results of the generalised forecast error variance decomposition analysis for the food price and crude oil price over the period of one, five to twenty years. The results indicate oil price shock explain 50% to 73% variation in food price over the forecast periods. Crude oil shows negligible impact of food price shock up to the end of the period. These results are consistent with impulse response function analysis. The results show that both oil price and food price explain high variations in their own shocks. Overall, the results show that oil price shock account for variations in food price over the forecast horizon.

Table 4. Estimates of Forecast Error Variance Decomposition Analysis

<table>
<thead>
<tr>
<th>Lag</th>
<th>Crude oil</th>
<th>Food</th>
<th>Period</th>
<th>S.E.</th>
<th>Crude oil</th>
<th>Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.08263</td>
<td>100.000</td>
<td>1</td>
<td>0.02131</td>
<td>0.01201</td>
<td>99.98799</td>
</tr>
<tr>
<td>5</td>
<td>0.22973</td>
<td>99.6660</td>
<td>5</td>
<td>0.06686</td>
<td>0.06329</td>
<td>99.93670</td>
</tr>
<tr>
<td>10</td>
<td>0.31914</td>
<td>99.4645</td>
<td>10</td>
<td>0.09844</td>
<td>1.36989</td>
<td>98.63010</td>
</tr>
<tr>
<td>20</td>
<td>0.41380</td>
<td>99.2320</td>
<td>20</td>
<td>0.14103</td>
<td>8.07471</td>
<td>91.92529</td>
</tr>
</tbody>
</table>

6. Conclusion

This paper examines the relationship between world crude oil price and food price in Nigeria using the Vector Autoregression Model. Specifically, the paper examines whether domestic food price response to recent changes in international oil price. The findings indicate no evidence of long run relationship between world crude oil price and domestic food price. The results of the causality test shows that neither crude oil price nor food price cause the other in either direction. However, the impulse response analysis indicate positive response of food price to oil price shocks. This finding suggests that recent changes in world crude oil have significant influence on domestic price of food in Nigeria like in most developing countries. The variance decomposition analysis further shows that oil price shock account for variations in food price over the forecast horizon. The implications of this finding is that policy makers should understand that there is no long run relationship between world crude oil price and food price. Furthermore, policies of controlling food price inflation should take into account oil price. Policy makers should come with strong strategies that will improve food self reliance and food security in the country.
References


INSECURITY: A THREAT TO NATIONAL DEVELOPMENT IN NIGERIA.

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Abstract
This paper examines the issue of insecurity in Nigeria and its impending danger it has in national development. The spate of insecurity and its after results in Nigeria leaves one with a cause to be sad. This trend has threatened lives and properties, hinders business activities and discourages local and foreign investors, all of which stifles and retards Nigeria’s economic development. Also, the rising wave of insecurity has not abated but has assumed a dangerous dimension which is threatening the corporate existence of the country as one geographical entity. The paper after coming to terms with the problem highlighted above adopts the descriptive and historical methods which relied on secondary sources of data. The objective of the paper is to examine the devastating threat insecurity throws at our nation and the resultant effects it has and to also suggest workable solutions to avert the ugly repercussions on our dear nation. In the light of the above, the paper recommends that government must deal with issues capable of igniting the fire of insecurity by accelerating the pace of economic development through creating an economy with relevant social, economic and physical infrastructure to engage unemployed youth, support business and industrial growth, government must be proactive in dealing with security issues and threats, through modern methods of intelligence gathering, and sharing among security personnel, and deploying advanced technology in managing security challenges.
Keywords: Insecurity in Nigeria, National Development
Introduction:

The Nigerian socio-political and economic environment over the years has been shattered with a series of widespread twin of crime and violent activities. Unfortunately, government on its constitutional responsibility has failed to provide a secured and safe environment for lives, properties and the conduct of business and economic activities. This has brought a high level of insecurity which has worsened the crime rate and terrorism in different parts of the country, leaving ugly consequences for the nation’s economy and its growth. Again, awful performance of successive administrations in Nigeria in addressing the challenges of poverty, unemployment and inequitable distribution of wealth among ethnic nationalities ultimately resulted to anger, agitation and violent crimes against the Nigerian state by some individuals and groups (Daniel, 2015).

Crimes like; militancy, corruption, kidnapping, bombing, arm robbery, destruction of government properties have again dealt mercilessly with the country’s economic development effort (World bank 1994). The activities of various militia groups consequently resulted in low income for government from oil revenue, moderating the gross domestic product growth rate, low participation of local and foreign investors in economic development and insecurity of lives and properties of the citizens (David, 2009).

You will recall that, a couple of years ago, there has been a dynamic dimension and rapid increase in sophistication of insecurity in Nigeria. Insecurity at one time in the past has been one of the lowest concern in the hierarchy of Nigeria’s social problem but has now assumed an alarming proportion and taken the lead in the array of Nigerian social problem.

The frequent occurrence of bomb explosions, orchestrated by the acclaimed religious extremist in the northern part of the country, has a worrisome dimension. According to security information released by crime guard, a security monitoring group, between March and December 2012, there were a total of 153 successful explosions in the country which claimed several lives.

Thus, the inability of security agencies to address the countries security challenges during this inauspicious periods raised yet another critical question on the preparedness of Nigeria to attained desired political, social and economic height again. It further poses serious threats to the unity and corporate existence of Nigeria as a sovereign state. So, basically, the deteriorating security situation in the country has pose developmental challenges which spells serious threat to the Nigeria’s national development.

Statement of the problems

Nigeria just like any other country is made up of different individuals, groups, states, local, government, religion and regions. These differences can be noticed in the ways of operations and aspirations of the diversity which when encroached upon by another, bring conflict which result to insecurity. Domination, suppression, or injustice mated against any one of these groups by another results to clash which at times threatens peace and security of the nation. Nigeria, the most populous nation in Africa, a nation with a population of over 170 million and with over 250 ethnic groups has had a series of clashes. Even at the level of interaction between individuals from different backgrounds there is bound to be misunderstanding as one may not be used to the practices of the other (Gillian, 2014).

The country today is overwhelmed with crises of different sort which have negative consequences on the national development. Nigerians were anxiously concerned on how the federal government can tackle the corrosive and caustic corruption, education, agriculture and power failure, but the recurring spate of hapless killings in the Northern parts of Nigeria, kidnapping and pipelines vandalisation in the south, Fulani massacre in middle belt, the Biafra activities in the east etc has diverted the minds of the federal government from providing the needed leadership to the people and focusing on how to deal with this
insecurity bedeviling the country. Government is meant to protect her citizens and property but in Nigeria the reverse is now the case. So many people had been innocently killed while property worth billions of naira destroyed for no just cause and the federal government has abysmally failed to bring the unsympathetic committers to book. Bringing this to the national outlook; when over 250 groups of people are brought together, there is bound to be misunderstanding. Therefore, this paper will highlight the effects of the insecurity in Nigeria and suggest possible solutions.

**Objectives of the Study**

The objective of the paper is to assess Insecurity which has been a threat to National Development in Nigeria. Other objectives include;

i. To examine some insecurity cases and their effects on the economy

ii. To identify causes of insecurity in the nation

iii. To proffer ways to reduce cases of conflicts that could lead to insecurity

**Methodology**

The study adopts historical and descriptive method. The secondary sources of data gotten from textbooks, journals, reports and other documents were used for the research.

**Discussions:**

**The concept of Insecurity**

The term Insecurity has different meanings as suggested by different scholars: while it could mean absence of safety; being in fear or bondage, danger; hazard; uncertainty; lack of protection, and lack of safety.

In the words of Beland (2005) insecurity is a state of fear or anxiety due to absence or lack of protection. Achumba (2013) defines insecurity from two perspectives. Firstly, insecurity is the state of being open or subject to danger or threat of danger, where danger is the condition of being at risk or vulnerable to harm or injury. Secondly insecurity is the state of being exposed to risk or anxiety, where anxiety is a vague unpleasant emotion that is experienced in anticipation of some misfortune (Leicher & Keri,2011). These definitions of insecurity underscore a major point that those affected by insecurity are not only uncertain or unaware of what would happen but they are also vulnerable to the threats and dangers when they occur.

As far as this paper is concerned, insecurity is seen as a breach of peace and security, by different factors which are capable of contributing to recurring conflicts, leading to wanton destruction of lives and properties and also hampering the growth of the economy.

According to Achumba et al. (2013) more than 1024 people have lost their lives from 2009 to 2012, and Nigeria is still witnessing series of insecurity ranging from so-called Niger Delta crisis, bombings and killings by the extremist Islamic sect, Boko Haram majorly in some parts of the North, the carnage between ethnic Birom and the Hausa/Fulani in Jos, the political violence that followed immediately after the 2011 Elections mostly in the northern part of the country, have further cemented the insecure state of the country. And all these have always resulted to the death of lives, destruction of properties and scared away investors to the detriment of the national development.

What the current trend of violence is imprinting on the psyche of Nigerians is that, the government security apparatus is incapable of guaranteeing the safety and security of its people. This would, therefore, impact on the general human security of the people as the situation promotes fear, while at the same time limiting the peoples’ ability to develop
economically. At the same time, the state's capacity to attract investors becomes limited as a result of the insecurity (Canice, 2011).

The concept of development

Kuhnen (1987), sees development is process of improving the quality of all human lives with three equally important aspects. These are

1. Raising peoples’ living levels, i.e. incomes and consumption, levels of food, medical services, education through relevant growth processes
2. Creating conditions conducive to the growth of peoples’ self-esteem through the establishment of social, political and economic systems and institutions which promote human dignity and respect
3. Increasing peoples’ freedom to choose by enlarging the range of their choice variables, e.g. varieties of goods and services.

Economic development is the process and policies by which a nation improves the economic, political, and social well-being of its people. Economic development is related to increase in output coupled with improvement in social and political welfare of people within a country (World Bank 1994). Therefore, economic development encompasses both growth and welfare values.

The issue of ideology of development posed a problem to conceptualizing development. Growth theorists argued that development is an outcome of economic growth while other scholars like Rostow (1952), Harrod-Domar (1957) posited that economic development and growth result from structural changes, savings and investments in an economy.

It is the process of empowering people to maximize their potentials, and develop the knowledge capacity to exploit nature to meet daily human needs (Rodney, 1972; Nnoli, 1981; Ake, 2001). The transformation of the society and the emergence of new social and economic organizations are critical indicators of development (Stiglitz cited in Nwanegbo and Odigbo, 2013).

SUSTAINABLE DEVELOPMENT

Our nation needs a sustainable development, by sustainable development it means such development that is likely to achieve lasting satisfaction of human needs and improvement of the quality of life and encompasses:

- Help for the very poorest who are left with no option but to destroy their environment to survive.
- Cost effective development using different economic criteria to the traditional –i.e. development that should not degrade environment.
- Important issues of health control, appropriate technologies, food self-reliance, clean water and shelter for all.
- People centered activities are necessary- human beings are the resources in the concept

Causes of insecurity:

Nigeria today has been experiencing rise in insecurity as a result to a large extent our inability to do things right. According Imobighe (2008), the factors that can be attributed to insecurity are as follows;

1. Unemployment: According to Adagba et al (2012) unemployment/poverty among Nigerians, especially the youths is a major cause of insecurity and violent crimes in
Nigeria. The teeming number of graduates who are being turned out of schools without jobs is alarming. There is an adage that ‘an idle mind is a devil workshop and also ‘a hungry man is an angry man’”, these apply in this case. We have an accumulation of unemployed people and graduates in Nigeria and the jobs are not forthcoming despite the promises by politicians. Some of these unemployed people take to wheeling-dealing while other ones inadvertently go into crimes to survive. So imagine where an average unemployed graduate that spent 4-5 years in the higher institution is constantly intimidated by money-bags that probably never went to a secondary school. Such unemployed graduate may be tempted to kidnap the so-called big-man or any of his relatives extort money from them. Qualified and capable graduates have been denied appointments but ex-convicts, indicted corrupt persons and criminals have been given such appointments even in the Security Agencies. How can we combat insecurity when we don’t have a comprehensive record of those that have committed one offence or the other in the past. A nation where the capable workforces engage in criminal activities just to survive would never develop economically.

### New Employment All Sector Q1, 2015 - Q1, 2016 Sector

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1</td>
<td>Q4</td>
</tr>
<tr>
<td>Formal Jobs</td>
<td>130,941</td>
<td>51,070</td>
</tr>
<tr>
<td>Informal Jobs</td>
<td>332,403</td>
<td>83,903</td>
</tr>
<tr>
<td>Public Sector Job</td>
<td>5,726</td>
<td>6,395</td>
</tr>
<tr>
<td>Total New Jobs</td>
<td>469,070</td>
<td>141,368</td>
</tr>
</tbody>
</table>


### New Employment Public Sector - Q4, 2015 - Q1, 2016

<table>
<thead>
<tr>
<th>Period</th>
<th>New Employment Generated</th>
<th>Number of Losses</th>
<th>Net Employment Generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4,2015</td>
<td>5,867</td>
<td>10,155</td>
<td>-4288</td>
</tr>
<tr>
<td>Q1,2016</td>
<td>5,726</td>
<td>8,764</td>
<td>-3038</td>
</tr>
</tbody>
</table>


The tables above show how bad it has gone, with the unemployment getting worst, something positive should be done and must be done very fast.

2. **Imbalanced Development:** This country is blessed with both natural and human resources which must be enjoyed by all citizens regardless from which region one comes from but unfortunately, there is an uneven pace of development in different parts of the country despite these resources. However, Africa’s biggest economy still faces major challenges. Chief among them is the state of its infrastructure. From roads
and rail, to irrigation systems and water pipelines, to mobile and broadband networks, and housing and energy, the current supply is desperately inadequate. The effects of that deficit on the macro economy and on the living conditions of Nigerians are stark (Hirschman, 1958).

Areas perceived as the oil rich region have its people looking out for more in terms of development and when this doesn’t happen, they feel cheated and would often want to take the laws into their hands via vandalism of oil pipelines and installations in a bid to claim their right. This endangers and raises insecurity amongst the people. The nations resources should be viewed as owned by all and the government should deliver equal development to all regions of the country. Sad enough, we hear the cry of marginalization from the minority groups, why must such be heard? When we do things right complaints of marginalization would be nib in the board.

3. **Corruption:** Corruption is a big killer of our economy today, money that should have been use to developing the economy has been stolen by individual whose conscience is seared, people building mansions worth billions of naira both in the country and abroad, fat account abound in the foreign land, fleet of cars by an individual is the order of the day. The question is, what is the source of their income? In fact, some of these corrupt people have been celebrated by conferring award to them, chieftaincy titles, chairmen at different fora etc. if the spate of corruption increases as we are witnessing, then the development of the economy is going to be a mere dream that may never come true. All these impropriety breeds financial insecurity which increases poverty and infrastructural deficit because monies meant to better the lives of the people fail to reach them.

Another conduit people used in stealing money is the so-called ‘security vote’ to public office holders. No accountability to this money and therefore they inflate the amount in this head just to use it in their selfish and wicked ways. In fact Transparency International the Global Coalition against Corruption, says the Corruption Perception Index 2015 of Nigeria is ranked Number 136 in the world in terms of corruption even with this fierce fight against the act by the present administration.

4. **Weak Judicial System, injustice, nepotism and a culture of impunity:** The Nigeria’s legal system has failed its people. There are who people commit all manner of crimes and get away with them. When justice is said to be meted out, the rich gets mild punishment for stealing or embezzling billions of naira while the poor is sentenced to many years imprisonment for stealing a tuber of yam. There is a widespread notion that justice can be bought or sold in Nigeria depending on one’s bargaining power and contacts in the corridors of power. Some of the alleged masterminds of Boko Haram are said to have been arrested in the past by security agents but promptly released due to intervention of powerful individuals while some of them were jailed for just few months, they come out sooner than later and continue with their nefarious activities. This has indicated that there are sacred cows that are probably bigger than the laws of the land, this only shows how weak and helpless our judicial system is, and what this is suggesting is that, you commit crime and criminalities and go free if only you have someone who can influence the process, this only causes more injuries to the economic fortunes of the country.

5. **Weak Anti-corruption institutions:** The so-called god-fathers, Cabals and power-brokers are known to be stronger than the government or the anti-corruption
institutions. They see themselves as untouchables. They boast that nothing will happen and nothing ultimately happens! A good example is the Petrol subsidy fraud masterminds. The government we can say had brokered a deal with them to return some of the money they embezzled. Many a times, the Police, Economic & Financial Crimes Commission (EFCC), Independent Corrupt Practices Commission (ICPC) etc needs some kind of ‘clearance’ from the powers that be before they can do what they are naturally supposed to do especially when a so-called godfather or powerful individual is involved. Be land (2005).

6. Leadership problem: There is no doubt that Nigeria is endowed with a plethora of unpatriotic, unscrupulous and greedy leaders. We have since past those days when leaders subordinate their individual interest to the interest of the country. Most political leaders are more concerned about the monetary value they stand to get from the posts they hold and have little or no interest in developing the country, they don’t have anything to lose, these were same people who had everything done to them by the government free when they were coming up, free education with special treatment and they only way they can pay back is by embezzling public funds to prove a point by gaining popularity with virtually no consequence mated on the culprit even when they are caught. Leadership in Nigeria is a do-or-die affair, it is not about competition of ideas or rendering selfless service as is the case in most Western Countries, best brains that can turn the fortune of this country around have been strangulated to death. A leadership position in Nigeria is seen as a lifetime opportunity for one to enrich himself and exonerate the next twenty generations of his family from poverty.

7. The over-concentration of Political Power at the centre or federal government is not helping matter at all. A situation where the government at the center decides on issues that are for the federating units is not too good. A typical example is the community policing which would have helped reduced the incident of insecurity in the states and local government areas. Sometimes before the government at the center could rise to the occasion the harm has been done, but if the tier of the government that is near to the situation is given the free hand, the crisis may not escalate and may be quelled. Akin to that, the local government autonomy which has been opposed by some state governor is retarding development. It’s high time we redefined and re-negotiate the terms and conditions of our existence perhaps through a National Conference or constitutional amendment with every effort to implement the recommendations.

Effect of insecurity on national development

Scholars have identified strong links between security and development since the cold war ended (Nwanegbo and Odigbo, 2013; Chandler, 2007). They argued that development cannot be achieved in any nation where there are conflicts, crisis and war, corruption, bad leadership, weak judicial institutions etc. There is a consensus in the literature that security and development are two different and inseparable concepts that affect each other, and this has naturally triggered debates on security-development nexus (Chandler, 2007; Stan 200).

Insecurity in Nigeria has retarded development in Nigeria in various ways. According to Taekyoon2009 some of the factors can include:

1. Criminal activities individually and collectively create insecurity and breach of the peace that are likely to or indeed affect legitimate social and economic activities in the country. These problems also have a damaging consequences of giving the signal to the rest of the international community that Nigeria is not a safe and secure place and
as such not suitable for economic investment and activities. This is particularly important in view of the efforts being made to create the desired atmosphere to attract foreign investment.

2. Nigeria food security is threatened by the destructive activities of the herdsmen who have nowadays tilted their man slaughter to the rural farmers. These farmers can no longer go to the farms because of fear of being killed by these elements. This scenario has cast a bleak future to the survival of agricultural sector and particularly food security.

3. Insecurity has heightens citizenship question which encourages hostility between “indigenes” and “settlers”. This has further brought division among Nigerians. You discover that the Fulani man cannot claim ownership of a piece of land in Lagos state, it will be said that he is not an indigene of Lagos state, once you are not an indigene of a certain place, you cannot be given chieftaincy title, you cannot be employed into the civil service of such state etc and that encourages disunity, conflict, creates general atmosphere of mistrust, fear, anxiety and frenzy.

4. Insecurity has brought dehumanization of women, children, and men especially in conflict situations. Women have become have become subject of rape, children have been displaced from their parents, thereby suffering from mal-nutrition. In general, people who can contribute their quota to the development of the economy are killed or shortlived.

5. Insecurity has brought about government diverted attention from its developmental stride to attend to the situation. Where there are crises, the dividend of democracy promised to the people will be overtaken by the crisis, all developmental activities are stopped; in fact, government spending and attention is beamed at the crisis situation thereby affecting the economy.

6. Unemployment and underemployment rate, added to other forms of social insecurity that force many jobless graduates of the nation’s tertiary institutions to acquire motorcycles, popularly known as Okada, mostly with secured loans. This they used for commercial purposes as a means of survival. Unfortunately, massive embrace of commercial motorcycle business by Nigerian youths did a great harm to technical skills acquisition, which is a critical component of economic empowerment and growth. A high number of the Okada riders who were once vulcanizes, motor mechanics, electronic technicians, battery chargers, brick layers, hair stylists, cobbler, traders and even apprentices, abandoned these critical vocations for Okada business in their quest for quick money while other trainees and potential trainees neglected the important Small and Medium Scale Enterprise sector. Not only have that, a lot of them being killed as a result of accident. And the implication is that, potential industrialist, employers of labour, and entrepreneurs etc have gone. The table below shows the number of death recorded via motorcycle.

<table>
<thead>
<tr>
<th>Year</th>
<th>no. of death</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>4,324</td>
<td>13</td>
</tr>
<tr>
<td>2011</td>
<td>4,403</td>
<td>14</td>
</tr>
<tr>
<td>2012</td>
<td>4,695</td>
<td>14</td>
</tr>
<tr>
<td>2013</td>
<td>4,402</td>
<td>13</td>
</tr>
</tbody>
</table>
Solution to the insecurity

According to Don Okereke, Security Analyst & Consultant in a security chat in 2012, uses his security expertise to advocate for the following;

1. Nigeria must start using a pragmatic approach in all its things. We must learn to tackle the source of our problems or causative agent rather than treating the symptom of the disease. Currently it will seem we are building on sand and not on a solid foundation because many of those issues that led to the Nigerian Civil war are still prevalent more than fifty years after the war ended. The unity of this country is not negotiable; we must remain as one indivisible entity if we must succeed. Splitting the country as suggested by some quarter is not the solution to our problem, we cannot do without crisis but does not mean we should split. Even in a nuclear family, there are bound to be disagreements, do we now split the family because of such quarrels. There is no doubt that Nigeria has come to stay but with more than 400 ethnic groups, we need a system of government that gives, if not all, then majority of our citizens a sense of belonging.

2. Another important step we must take to curtail insecurity is for us to embrace a Political system of government that gives more power to the federating units rather than concentrating so much power at the centre.

3. To eradicate or curtail insecurity, we actually need to strengthen our judicial system by ensuring that the judges appointed leave above board and who are free from corrupt tendencies and the love of materialism, who can dispensed justice based on its merit no matter who is involved. Measures must also be put in place to ensure quick dispensation of justice. In Nigeria, people commit an offence that last for more than five years with the culprit being jailed for more than five years awaiting trial.

4. Nepotism and a culture of impunity are factors that kill economic development and must also be eschewed from our national psyche and life. Every Nigerian is equally important and must be care for, Nigeria must be a classless nation and not a country where there are two sets of rules; one for the rich and another for the poor. Nigerians must not be made to suffer in the midst of plenty. This will go a long way to reduce the crimes perpetrated by the citizens.

5. Unemployment must be seriously tackled and curtailed. The private sector must be encourage and supported to create the much needed jobs. Constant electricity supply will no doubt boost employment and increase productivity. The youth need to be engaged thereby taking away their attention from all crimes and criminalities.

6. Also the issue of weak anti-corruption institutions like EFCC, ICPC must be strengthen by making them truly Independent, There must not be sacred cows, or the untouchables, the minister of justice and attorney general of the federation must allow justice to flow naturally without influencing the process, All citizens must be equal before the law. A situation where the Attorney-general of the federation or the minister of justice arbitrarily and unilaterally terminate or discontinue any case instituted by the EFCC and other corrupt agencies should not be seen, heard or practice, cases should be allow to be decided upon based on their merit and not based on sentiments. Because any attempt to short change justice will only breed the unwarranted behavior by the other party.
7. Government must be known to be true government who stand by their words, they must walk the talk or match action with words. The culture of foisting candidates on the electorate during elections must stop. Elections must be free and fair and a system should be put in place that ensures only Patriotic and unscrupulous individuals hold positions of responsibility. The fire brigade approach to solving problems be it security or otherwise must be stopped. More often than not, we wait until the harm is done before we start running helter-skelter. We must embrace an intelligence gathering method. Problems, crises etc must be nipped in the bud before they escalate.

8. Technology has help to reduce the incidents of security challenges to the barest minimum in other climes, surveillance cameras have been installed in strategic locations to view all engage in nefarious activities, the telecommunication companies have been partnered with to help monitor the activities of people, that can applied to Nigeria.

Conclusion
In all, what we need is a good government, no more no less. And a good government is possible in as much as people who are put in positions of authority are allowed and are committed to discharge their duties without fear or favour; are determined to serve with zeal and patriotism; are not ready to sell out to international capital and are ready to stand by the truth and die for it.

Recommendations
The paper recommends the following:

1. Increase in unemployment in the nation has continued to increase violence and criminal activities thereby making the country insecure. Undoubtedly, an insecure environment will definitely result in job lose. Government should therefore tackle and arrest youthrestiveness by investing on job creation.

2. The government through the justice ministry should check the excesses and discipline any judge found to collaborate with criminals to stall justice dispensation. In the fight against corruption in the public service, the anti-graft agencies have always made with barricade against them in the courts. The courts have been repeatedly blamed for frustrating justice delivery through all manners of injunctions, exparte orders, and in some cases, outright acquittals.

3. Government must be fast and proactive in dealing with security issues and threats. Sometime rumours of security breach are heard but such are not taken with the prompt attention desired until the harm is done, Government must ensure that nothing is left to chance and this is possible through modern methods of intelligence gathering, and intelligence sharing, training, logistics, motivation, and deploying advanced technology in managing security challenges.

4. Insecurity can be tackled if government put more effort to increase the pace of development by evenly creating and distributing infrastructures, provide gainful employment, state of the art medical care, and industrialization etc to regions of the country.

5. There is need for government at the centre to relinquish parts of its power to the federating units or better still hands off some aspect of governance to the state and local government. Issues of community policing will help mitigate
or even nip in the board the act of criminality in the society. The issue of the winner takes it all is not helping either, the political space should allow a good portion of offices to other political parties to occupy, that way, the struggles or arm twist that we see before, during and after elections will not be seen again.

References


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GLOBALIZATION AND THE SOCIO-ECONOMIC IMPACT OF THE PROLIFERATION OF SMALL ARMS AND LIGHT WEAPON IN THE NORTH-CENTRAL NIGERIA

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Abstract:
This paper titled “Globalization and the socio-economic impact of the proliferation of small arms and light weapon in North-Central Nigeria” is written to determine whether the proliferation of small arms and light weapon is induced by Globalization and to assess its impact on the Socio-economic life of Nigerian citizen, between 2006 through 2015. Since the work is a qualitative study, the research elicits data from secondary sources. The paper concluded that though globalization have brought about the integration of the world and enhance both political, economic and social interaction, it has posed most developing nations to the threat of insecurity through proliferation of small arms and light weapon thus recommended that the problem of unregulated availability of small arms and light weapon through transborder integration be aggressively tackled.

Key words: Globalization, Proliferation, Small arms and Light weapon.

Introduction
Globalization theorists such as spyby (1996), Freedman (1998), Vancreveld (1999), lips Chutz (2000) and Show (2000) suggest that the national state security has weakened under the impact of powerful global social forces. Though, the concept become prevalent in the post modernism of the 1980’s and become more popular from 1990s. Today, the phenomenon has gained prominence which propelled social process in which countries social and cultural arrangement recede and the awareness has increasingly transform the economic and socio-political climate of the world. Globalization is a process of interaction and integration among people, companies, and government of different nations, a process driven by international trade and investment aided by information technology. This process has effects on the environment, culture, political system, economic development and on the human physical well-being.

Through globalization, there is unregulated availability of small arms and light weapon which undermines livelihood strategies and imperils development opportunities. Globalization has also bridged global economic, political and cultural integration. The
borders have become increasingly accessible, tariff being removed, trade barriers surmounted through economic and political integration. On one hand, globalization contributes to accelerated development of productive forces, scientific and technological progress and ever more intensive communication among states and people. On the other hand, it has facilitated the easy transportation of illegal arms from one country to the other and has transformed a domestic law and order problem to a national and international security threat.

Globalization results in the long term irreversible contraction in the domain of state authority. Coupled with liberalization, states have in effect lost control of markets as reflected in the development of parallel informal economics, the rise of grey and black markets and the inability of the states to prevent the flow of illicit arms because of the porous nature of most borders and the adoption of policies such as “free movements” of people in a particular region.

Approximately 80-90 percent of the global trade in small arms and light weapon is legal. According to the estimates by Arms control and disarmament Agency (ACDA 2001), the legal export of small arms and the corresponding ammunition constitutes 13 percent of the world trade in conventional arms which translate to three billion US, Dollars annually. Besides, the proliferation of small arms and light weapon in Africa has been major factors that increase the number of conflicts and hindered smooth rebuilding and development after a conflict has ended. It is the fundamental obstacles to peace and security and also the major source of destruction to live, properties and inter-communal tension leading to full-fledge conflicts. Africa is one of such vulnerable to different kinds of conflicts including ethnic and religious crisis. The continent is noted as a place where machine guns, rifles, grenades, pistols and other small arms remain the primary weapons of intra- and inter-communal feuds, local wars, armed insurrections, armed rebel activities and terrorism throughout the sub region have killed and displaced many civilians.

The North central Nigeria comprises of seven states (Kogi, Niger, Benue, Kwara, Plateau, Nasarawa and the Federal Capital Territory) and each of these states is embedded in conflict fuel by the availability of small arms and light weapon. The nature of the conflict is such that violent clashes erupted between States over ownership of oil field in Kogi state, Muslim fundamentalist attacked and destroyed churches in Kwara State, suspected Fulani militia men attacked various residence in Jos, Plateau State, In Taraba State, Fulani heads men kill and attacked residence, morso, in Abuja, suspected Boko Haram Islamists whose ideology is framed around religion carried out a suicide bomb attack on the police Headquarters, similarly, suspected Boko Haram attack united Nation (UN) House in Abuja, the Nigeria Federal Capital Territory. In all these conflict/attack, thousands of lives were lost, property worth millions were destroy, millions of men and women become widow and widowers, children also become orphans, so many were left homeless and lose their source of lively hood to the crisis.

The Camps open for Internally Displace Persons continue to be overstretched by people displaces from their places of abode as a result of various crises induce by the proliferation of small arms and light weapon, these problems has created a new challenges to all the relevant disaster Management bodies and the Government of North central States in Nigeria. The condition of the camps, according to Gbenga (2016), is said to be appalling as basic infrastructure is lacking, some of the key facilities that have been stretched are source of clean water, clinic, toilets, shelter, and lack of school, food and clothing. Moreover, new babies are daily swelling the camps in tens, creating a new dimension to the barrage of challenges facing the socio-economic life of Nigerians in the North Central Region.

Various studies have been conducted on the proliferation of small arms and light weapon in Nigerian but no research work was carried on globalization and the socio-economic impact of the proliferation of small arms and light weapon in the north-Central
Nigeria. This research work is writing to determine whether the proliferation of small arms and light weapon in North Central Nigeria is induce by Globalization and to assess the impact of the proliferation of small arms and light weapon on the socio-economic life of Nigeria citizen in the North-Central region. However, this research work will be useful to both Non-governmental Organization and Government in policy making and execution targeted at reducing the proliferation of small arms and light weapon in Nigeria.

Statement of the Problems
Nigeria continues to face increased security threats due to Proliferation of small Arms and Light Weapon. This ugly trend though common in developing nations resulting from porous borders and lack of effective security measure, its degree and effects varies from country to country. Stohl and Tuttle (2009) conclude that Nigeria have been adversely threatened with serious security challenges and the effects cut across both the environment, political, economic and social dimensions, this result to loss of lives and properties, weakened Institutional framework and increase poverty, unemployment and loss of both human and material resources.

The impact of Globalization have improved the social and economic fortunes resulting from global integration and increase ties among nations but its negative consequences have caused the nations especially developing nations to face serious security challenges. This research shall be able to address the socio-economic impact of the proliferation of small arms and light weapon in Nigeria.

Scope of the Study
This research is principally about globalization and the socio – economic impact of the proliferation of small arms and light weapon in North – Central Nigeria. Therefore, the researcher shall cover the six States of Benue, Kwara, Kogi, Niger, Nasarawa, Plateau and the Federal Capital Territory.

More so, the paper shall critically examine some socio – economic variables and how they are affected by globalization and proliferation of small arms and light weapon and the period covered is between 2006 - 2015.

Literature Review
Literatures relevant to the work were carefully reviewed to provide good base for understanding the problem under study.

The Concept of Globalization
Globalization according to Ogbonnarya and Ehigiamusoe (2013) has historical transformation in the economic and socio - political integration which harmonizes the cultural, economic and philosophical perceptions of nations. Though mittelman (2006) argues that globalization is the process of the integration of economic, political, social and cultural valves across international boundaries. Adeniyi (2002) noted that the wave of globalization lasted for three decades and it occasioned by the pillage of African’s natural resources that necessitated the enslavement, deportation and deprivation of most Africans.

More so, globalizations have its interpretation beyond trans-border or multi-lateral integrations between or among nations, but its value is on the transcendence of the economic, political, environmental, democratic and environmental phenomenal (Omoweh 2000). No wonder Nnoli (2002) argued that globalization is complex phenomenons which interface with various sections of human variations and compatibility of values and the living standard of the people.
Globalization is the shrinking of geographic space and politically defined borders to accelerate and magnifies flows of money, goods, people, idea, culture, ethnics, values and information around the world (Stiglitz 2006). The greatest area of the effect of globalization on developing nations and their citizens is in the areas where the state used to play a pivotal role in the life of the citizens through social welfare policies and programmes thereby strengthening economic dynamics (Okpaobi 2014).

The world economic and socio – political environment have been integrated through globalization with the instrumentality of technology hence Nwokedi (2001) argues that Countries of various kinds benefit from globalization through access to improved goods and services, lower prices, improved health facilities and broadened opportunity for improved human resource development and employment opportunity. Therefore, Owutu (2014) concludes that globalization has logic of history and it is characterized with liberalism, free market policies, information and communications technology, borderless borders therefore securing the socio – economic fortunes of nations through integration. More so, Tony and Jan (2003) posit that globalization do not have economic correlation alone but it is also a process of integrating the cultural, technological, social, political and demographic dimension. Hence, globalization institutionalized the public and private organizations towards integrating these variables to improve the living standard of the populace through advanced technology, international politics; international economics creates room for direct foreign investment and international finance. Therefore, globalizations enhance technological and socio - economic revolution to enhanced the welfare of the citizenries’ growth and development.

**An Overview of Trends in Globalization**

The global interdependence and increasing interaction among the integration of economic activities have helped the socio - economic interaction globally. Ajayi (2001) argues that globalization is the intensification of finance and the inflow foreign direct investment among nations and liberalization of information communication and communication improved Trans- border cooperation. Hence, the living standard of the citizens enhances economic integration.

The late 19th century witnessed a dramatic integration of the economy resulting from rapid expansion in world trade, the formation of the Latin Monetary Union of the 1865 and the gold standard in 1878 (Onwuka, 1998, Orouke and William 1999).

The global economic inter course managed trade by the major trading countries between the first and second world wars, the post 1945 multilateralism permeated all parts of the world. More so, United Nations (2001) noted that since 1990 these have been economic cooperation lifted the ratio of the growth of world export volume of the gross world product benefits globalization thereby exposed new concepts and ideology into the products prompted specialization, improved cooperation and economic liberalization. This process was propelled by the intensive integration of the transactional cooperation.

Khor (2001) observed that not every nation have keyed into the globalization process as the developed nations used their competitive advantage to boost their share of world trade and finance. Therefore, these developing nations are losing out but due to the worsening of existing imbalances and distortions of the global economic scene. More so, Collier and Dollar (2001) noted that there is unequal political and economic power created opportunities for wealth and decision making. Though, two classes of the global economy such as the developing and developed nations. Moreso, industrial Countries protect their markets especially in the sectors where the developing nations have a recognized comparative advantage such as textiles, clothing and foot wear. More so, agriculture is protected usually through subsides, driving world prices down and adversely affecting farmers in developing Countries the more.
Mcguirk (2002) and Lankas (2002) noted that the economic losses from agricultural protection in developed nations is 150 billion dollars yearly, about 50 billion dollars of it in lost exports for developing nations, though the task of global economic reform is ceded to the international monetary fund and the World Bank the policies of these agents of globalization being controlled by highly industrialized countries. The economic internationalization process entails the prospects of growth in uncompetitive economics. Onimode (2003) noted that the economic circumstances of developing nations, the desirable policies for them even in the context of globalization therefore promoted self-reliance. Consequently, globalization is more than the free interplay of market forces since economic questions cannot be separate from social issues.

**Globalization and Economic Development: The Nigerian Experience.**

Most developed nation’s experienced economic fortunes through exports and the economic inflow such as foreign direct investment. These nations also protect their economics especially in areas where the developing countries has comparative advance. The estimate of economic losses from agricultural protection in developed countries is amounting to 150 billion dollars while the global economic reforms are targeted at strengthening the economic base of these nations.

The economic internalization process helped in strengthening the economic base and the political good will of the developed nations (Orouke 2002). But the developing nations especially Nigeria have strong economic base resulting from the endowment of our natural resources. The Nigeria economic development is predicated upon the proper utilization of these resources and strengthening of the institutional flamworke to suitably fit the global economic reality. However, Onouha (2012) argues that the bane of Nigeria economic development are monumental corruption, nepotism, policy summersault, inconsistency in decision making, insecurity and lack of focus by the policy makers to strategically visionized the economic agenda.

**Globalization and Nigeria Border Security: Issues and Challenges.**

The Significance of peace in the development of every nation cannot be over-emphasized. Border security has assumed a heightened relevance at the global scene. Akinyemi (2013) observed that globalization have resulted to transitional crimes being conducted due to the integration of the nation’s economic and political phenomenon and the removal of barrier across the borders. Consequently, Oladiran (2014) noted that this has increased the socio-economic and political survival. More so, the resultant effects of poverty, unemployment and economic stagnation have posed the nation to increased crime rate. Insecurity and increase crime rate have bedeviled the nation therefore breached the nations peace due to the effects of globalization and this affect the social and economic activities (Akintokunbo 2011). The continuous incursions of security threats to the developing nations is largely due to the embracing of the globalization process without the institutional structure to combat the negative effects such as insecurity and crimes thereby, the nations have witnessed increased social and economic catastrophe. More so, the problem of insecurity have given negative signal to the international community about Nigeria and it posed socio-economic challenges to the nation because investors are scared of injecting funds towards their business, foreign direct investment is threatened thereby affecting the nations revenue profile.

More so, Ayoob (1997) noted that the security threat bedeviling developing nations is due to the weakened state structure and porous border therefore the socio-economic fortunes of the citizens have been threatened because the sorry state of the nations especially Nigeria
witnessed increased terrorism, kidnapping, armed robbery and militancy have not only scare investor but also affect the revenue profile of the nation. Danbazau (2012) noted that Nigeria insecurity has not been tackled due to lack of commitment and lack of lackadaisical attitude of the nation security apparatus. More so, the rates of poverty and unemployment have made the citizens prone to this negative phenomenon. The level of corruption according to Okereke (2012) concurred with the above and added that embezzlement of funds allocated to tackle these security threats coupled with corruption related cases creates avenue for these negative scenario especially in developing nations.

Small Arms and Light Weapons and Proliferation in West Africa.

West Africa has witnessed some devastating armed conflicts in the world. The region remains prone with several nations being divided along political, ethnic and religious lines. Therefore, these nations are put under international watch lists for further violence. The conflicts especially in West Africa have being propelled by an army of young people being frustrated resulting from lack of employment and easy access to small arms and light weapons.

The United Nations (2013) noted that there are eight million illicit small arms and light weapons in West Africa. The Geneva - based small arms survey has also reassured the situation, claiming that if rebel forces are armed, there region will be more intense and posed serious security challenge. Therefore, the trend of proliferation and importation of light weapons resulted to making the region a conflict zones. The economic community of West African States (ECOWAS) region is not exempted as most member countries have access to the proliferation of these small arms and light weapons.

Small Arms, Light Weapons and Ethnic Conflict: The Nigerian Experience

Nigeria is seen as the giant of Africa but it has been faced with the challenge of insecurity. Though, it is now witnessing democratic government, the militarization of the political system has not been eschewed. Nigeria`s illicit light weapons trade can be traced to the failure to execute a comprehensive arms collection programme after the 1967 – 1970 civil war. It has also been fuelled by growing crime, endemic and monumental corruption and ethno - religious conflicts, and widespread leaks from government armories.

Though, the fire arms Act (1959) was the main legal instrument addressing the production, movement of small arms and light weapons, it was reviewed in 2001 partly due to the 12,000 people arrested in relation to arms trafficking or illegal possession of weapons between 1990 and 1999 with over 50 of them being successfully prosecuted. In year 2000 the government constituted a twelve man National committee on the proliferation and illicit trafficking in small arms and light weapons targeted at gathering information on the proliferation of illicit trafficking and recommended appropriate measures to address these challenges.

The continuous quest for economic dominance have posed security challenges in Nigeria especially the oil - rich Niger Delta region where violence have become prominence coupled with the continuous social and economic challenges in every parts of Nigeria thereby posing several security challenges to the nation such as the militancy in the South - South region, Ordudua people`s congress agitation in the South West, Armed robbery and kidnapping in the South - East, Boundary disputes and ethno - religious crisis in the North - Central and North West regions and the Boko - Haram insurgency in the North East region of Nigeria. These challenges have threatened the political and socio - economic fortunes of the nation.
The Social Impacts of Light Weapons Proliferation in Nigeria

The levels to which small arms and light weapons have been proliferated in Nigeria have affected the social and economic phenomenon of the citizens. Christopher (1995) noted that it has resulted into poverty, unemployment, under - nourishment, increased infant mortality rate and decreasing infrastructural facilities. The citizens are adversely affected owing to the fact that there is linkage between the social-economic and political integration of the nations. Hence the income - per capital, gross domestic product, direct foreign investment of the nation have been threatened and the revenue profile also adversely affected. The health of the citizens are also affected owing to the fact that most citizens who are victims of insurgencies either have little access or no access to adequate medical care especially the women and children.

<table>
<thead>
<tr>
<th>DATE</th>
<th>PLACE OF INCIDENTS</th>
<th>NUMBER OF DEATHS</th>
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<tr>
<td>January 1</td>
<td>Jakun Fulani clash in Taraba State</td>
<td>5</td>
</tr>
<tr>
<td>January 15</td>
<td>Farmers/Fulani clash in Nasarawa State</td>
<td>10</td>
</tr>
<tr>
<td>January 20</td>
<td>Farmers/Fulani clash in Nasarawa State</td>
<td>25</td>
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<tr>
<td>January 24</td>
<td>Fulani/Farmers clash in Plateau State</td>
<td>9</td>
</tr>
<tr>
<td>February 7</td>
<td>Fulani/Eggon clash in Nasarawa State</td>
<td>30</td>
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<tr>
<td>March 20</td>
<td>Clashes between Fulani and Tarok Plateau State</td>
<td>18</td>
</tr>
<tr>
<td>March 28</td>
<td>Clashes between Fulani &amp; Farmers in Riyon Barkin Lad, in Jos, Plateu State</td>
<td>28</td>
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<tr>
<td>March 29 – 30</td>
<td>Clashes between Fulani and natives in Boxos LGA Plateau state</td>
<td>18</td>
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<tr>
<td>March 30</td>
<td>Police Killings and clashes between Farmers and Fulani</td>
<td>6</td>
</tr>
<tr>
<td>April 3</td>
<td>Farmers/Fulani clashes in Gima LGA Benue State</td>
<td>3</td>
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<tr>
<td>April 10</td>
<td>Clashes between Fulani and Tiv Farmers</td>
<td>28</td>
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<td>April 23</td>
<td>Fulani/Egze Farmers clash in Kogi State.</td>
<td>5</td>
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<tr>
<td>May 4</td>
<td>Fulani/Farmers clash in Plateau State</td>
<td>13</td>
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<tr>
<td>May 4</td>
<td>Jukun/Fulani clash in Wukari, Taraba State</td>
<td>39</td>
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<tr>
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<td>Event Description</td>
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<td>--------------------------------------------------------</td>
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<tr>
<td>May 13</td>
<td>Fulani/Agatu clash in Benue State</td>
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<tr>
<td>May 20</td>
<td>Tiv/Fulani clash at Benue – Nasarawa State border</td>
<td>23</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>300</strong></td>
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</table>

**Source:** Trust May 26, 2013
Theoretical Framework

This research is on globalization and its socio–economic impact on the proliferation of small arms and light weapons in North – Central Nigeria. The theoretical framework as noted by Asobie (2002) posits two opposing view of the concept, such as modernization theory and dependency theory. This theory focuses on the costs and benefits of globalization.

The theory of modernization as noted by Ibrahim (2010) posits that the benefits of globalization outweigh its costs. The ideal so supported it view with some reasons such as: it will boost the world economy, it will create employment opportunity and will also increase the production volume. Whereas, the dependency theory holds that the costs outweighs the benefits such as enriches the developed economics at the expense of the third world nations, reinforces existing international division of labour and that there are unequal exchange relations between the developed and developing nations. Therefore, the study aimed at critically examining these two opposing theoretical phenomenon and how it affects the social and economic lives of the citizens.

Conclusion and Recommendations

From the findings in this research, the paper concluded that even though globalization have brought about the integration of the world and enhances both the economic, political and social lives of the citizens, it has posed the nation to increased risk of heightened insecurity through the proliferation of small arms and light weapons.

Moreso, from the findings of the research, the paper make the following recommendations: the problem of unregulated availability of small arms and light weapon through transborder integration should aggressively tackle.

The problems of unemployment and poverty should be tackled to engage the youths who are more vulnerable to crime. There should be periodic review of regional integration to appraise its impacts so as to address the area that require peculiar regional challenges with the view to tackling them. Moreso, the political challenges bedeviling developing nations which propelled the proliferation of firearms such as political thurgy, imposition of candidate etc be adequately tackled.
References:
Arms Control and Disarmament Agency (ACDA 2001)
Show, (2000)
Spy by.,(1998)
FINANCIAL LEVERAGE AND FIRMS’ PERFORMANCE: A STUDY OF QUOTED COMPANIES IN THE NIGERIAN STOCK EXCHANGE

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Abstract
The theory of financial leverage and its relationship with firms’ performance has been an issue of great concern in corporate finance and accounting literature since the seminal work of Modigliani and Miller in 1958. This study investigated the effects of financial leverage on firms’ performance using 66 non-financial firms’ from all the 10 sectors of the Nigerian Stock Exchange over the period 2005-2014. Panel data techniques in the form Pooled Ordinary Least Squares (POL), Fixed Effects and Random Effects estimators had been applied to achieve the study’s objectives and test its hypotheses. Analyses of the aggregate data were done using both descriptive and regression analysis. The major findings of the study revealed that an increase in the equity portion of total-debt equity ratio (TDER) has a significant positive effect on firms’ financial performance measured by return on equity (ROE). The study concludes among others that financial leverage surrogated by total-debt equity ratio (TDER) is an important indicator of firms’ financial performance and vice versa. Based on the major conclusions, the following recommendations were given among others that non-financial firms’ quoted on the NSE should increase the equity portion of the debt-equity mix in their capital structure in order to improve firms’ financial performance. It was also recommended that non-financial firms’ quoted on the NSE should avoid excessive use of debt, as debt of any form has no significant effect on their financial performance; and the risk of financial distress and probability of bankruptcy is higher with firms’ having excessive debt in their capital structure.

Keywords: Financial leverage, Firms’ performance, Nigerian Stock Exchange, Total-debt equity, Return on equity

1.0 INTRODUCTION
Financial leverage decision is a vital one since the performance of a firm is directly affected by such decision; hence, financial managers should trade with caution when taking debt-equity mix decisions. The theory of financial leverage and its relationship with firms’ performance has been an issue of great concern in corporate finance and accounting literature since the seminal work of Modigliani and Miller in 1958 (Al-Taani, 2013; Mohammed, 2010; Ogebe, Ogebe & Alewi, 2013). Modigliani and Miller (1958) asserted irrelevance of debt-to-equity ratio for firm value. However, since they considered the assumptions of perfect markets, which no taxes, absence of transaction and bankruptcy costs, the theory about the debt irrelevance is hardly realistic. Later, Modigliani and Miller (1963) relaxed a no-tax assumption and developed a theory about tax benefits of debt. That paper gave rise to a serious academic discussion on the theory of financial leverage (Iavorskyi, 2013).

However, there are certain costs associated with debt financing. Between the two extremes of whole equity financing and whole debt financing, a particular debt-equity mix
(financial leverage) is to be decided. Therefore, a financial leverage decision should be designed in such a way that it maximizes shareholders return and minimizes risk.

Similarly, since the value of the firm is directly related to its performance, financial experts study the relationship between financial leverage and firms’ performance in order to validate Jensen’s (1986) theory. However, empirical studies have not reached a consensus about the relationship between leverage and firms’ performance. This study is therefore, an attempt to contribute to the empirical studies on how financial leverage affects firms’ financial performance using 66 non-financial quoted firms’ in the Nigerian Stock Exchange (NSE).

Moreover, despite the widespread interest in the way firms make their financing decisions, most of the researches on financial leverage have been conducted in the advanced countries’. This study on the other hand, is an attempt to fill this gap in knowledge; hence, the main problem of this research is to investigate how financial leverage affects the financial performance of quoted companies in the Nigerian Stock Exchange.

Additionally, review of existing empirical studies on Nigerian quoted firms’ revealed at least eight methodological flaws with prior studies, and this study on the other hand, intends to fill these gaps by addressing the problems.

First, Ezeoha (2008), Mohammed, (2010), Innocent, Ikechukwu and Nnagbogu (2014), and Abubakar (2015) all measured leverage as the ratio total liabilities to total assets. This measure does not indicate whether the firm is at the risk of default in the near future. Similarly, items such as account payables and pension liabilities included in total liabilities may influence this ratio.

Second, Omowunmi (2012), and Chinaemerem and Anthony (2012) measured total debt ratio as the ratio of total debt (both short-term and long-term) to total asset. This measure according to Rajan and Zingales (1995), fails to take into account the fact that there are some assets that are offset by specific non-debt liabilities. For instance, an increase in the gross amount of trade creditors is reflected in a reduction of this measure of leverage. Given that the level of accounts payable and accounts receivable may jointly be influenced by industry consideration, it seems appropriate to use a measure of leverage unaffected by the gross level of trade creditors.

We addressed the issues of measuring leverage by using the ratio of total debt (short-term and long-term debt) to total capital (defined as total debt plus equity). This measure is not affected by trade credit and factors that may have nothing to do with financing. According to Rajan and Zingales (1995), the effect of past financing decision is probably represented by this ratio.

Third, prior studies on the effects of financial leverage on firms’ performance, to the best of the researcher’s knowledge, did not take into account the possibility of reverse causation from firms’ performance to financial leverage. If firm performance affects the choice of leverage, then failure to take this reverse causality into account may result in simultaneous equations bias. That is regressions of firm performance on a measure of leverage may confound the effects of financial leverage on firm performance with the effects of firm performance on financial leverage.

We addressed the problem by lagging our independent variables and we also carried out the Pair Wise Granger causality test to detect the direction of causality between financial leverage and firms’ performance.

Fourth, most prior studies (see for example, Akande, 2013; Edesiri, 2014; Innocent et al. 2014; Thaddeus & Chigbu, 2012) have been conducted using either Ordinary Least Squares (OLS) method, correlation technique or both. OLS is prone to serious econometric issues.
We addressed this fourth problem by adopting panel data analysis which is more robust than frequently used Correlation and Ordinary Least Squares techniques. We also run diagnostic tests.

Fifth, some studies have been conducted focusing on a particular industry/sector or using small sample size. For example, Oke and Afolabi (2011) sampled only 5 companies quoted on the Nigerian Stock Exchange (NSE); David and Olorunfemi (2010), focused on only 4 quoted companies in the petroleum industrial sector; Thaddeus and Chigbu (2012), sampled only 6 banks quoted on the NSE and Akintoye (2008), relied on only quoted companies in the food and beverages industry for their analysis. This may limit generalizations to only sampled sector/sectors.

Sixth, Chechet and Olayiwola (2014) combined financial and non-financial firms’ in their analysis. This is not consistent with most prior studies in both advanced and developing countries, because the balance sheet structure and leverage of financial firms’ are different and not strictly comparable to those of non-financial firms. In addition, the researchers’ did not account for industry effect and the impact of economy-wide policies may vary across industries.

We addressed the fifth and the sixth problems by using 66 non-financial quoted companies from all the 10 sectors of the Nigerian Stock Exchange. We also used the panel data techniques in the form of fixed effects and random effects estimators which take care of the issues of industry effect.

Seventh, the market performance measure (Tobin’s Q) has been ignored by studies in Nigeria, but recently adopted by Omowunmi (2012). We also found from the review of literature that no author even from those outside Nigeria investigated the relationship between financial leverage variable (debt-equity ratio) and market performance measure (Tobin’s Q).

Eighth, most prior studies to the best of the researcher’s knowledge to a greater extent have been conducted on pre-economic global downturn period i.e. the period before the year 2008 (see David & Olorunfemi, 2010; Mohammed, 2010; Ojo, 2012; Omowunmi, 2012; Onalapdo & Kajola, 2010). Studies focusing on pre-economic global downturn period will only have generalization of their findings limited and relevant to such period.

We addressed the seventh and eighth problems by adopting the financial leverage variable (debt-equity ratio) and market performance measure (Tobin’s Q). The study’s period (2005-2014) covered both pre and post-economic global downturn periods. The choice of this period allows us to investigate the long-term relationship between financial leverage and performance of quoted firms’ in Nigeria.

Additionally, the study covered the period of 10 years (2005-2014). The reason for choosing this time-horizon was to reduce estimation bias associated with short term measurement instability, and also to provide an opportunity to understand how leverage affects financial performance of quoted firms’ in Nigeria in both pre and post-global economic downturn periods. Most prior studies have focused on pre-global economic downturn period, i.e. the period before the year 2008. Similarly, the year 2005 marked exactly five years after which the Nigerian accounting system witnessed a reform. Companies were mandated to prepare their financial statements in accordance with the guidelines of the International Accounting Standards (IAS). In January 2012, Nigeria adopted the International Financial Reporting Standards (IFRS). This is important because good financial reporting makes investment and financial decisions more reliable and efficient.

Moreover, the study period also witnessed remarkable reforms in the financial sector and there was a notable development in the Nigerian Stock Exchange. The end year 2014 was chosen because the financial statements and annual reports of most of the quoted firms were only available up to 2014 as at the time of conducting this study.
The broad objective of this study was to determine the effects of financial leverage on financial performance of quoted firms’ listed on the Nigerian Stock Exchange. In line with the broad objective, the following specific objectives were achieved:

i. To determine the effects of financial leverage on return on equity (ROE) of quoted firms’ listed on the Nigerian Stock Exchange.

ii. To evaluate the effects of financial leverage on return on asset (ROA) of quoted firms’ listed on the Nigerian Stock Exchange.

iii. To assess the effects of financial leverage on Tobin’s Q of quoted firms’ listed on the Nigerian Stock Exchange.

The study tested the following hypotheses:

i. H01: financial leverage has no significant effect on return on equity (ROE) of quoted firms’ listed on the Nigerian Stock Exchange.

ii. H02: financial leverage has no significant effect on return on asset (ROA) of quoted firms’ listed on the Nigerian Stock Exchange.

iii. H03: financial leverage has no significant effect on Tobin’s Q of quoted firms’ listed on the Nigerian Stock Exchange.

This paper is structured into five sections. Section one is this introduction. Section two presents the literature review which highlights the concepts, empirical studies on the study’s main variables and the theoretical framework adopted for the study. In section three, methodology of the research is discussed. Section four presents results and discussion of findings. The last section presents the conclusions that were drawn, and recommendations that were offered for consideration by the Chief Executive Officers’ of non-financial deposit money banks and their regulatory authorities particularly Central Bank of Nigeria (CBN).

2.0 LITERATURE REVIEW AND THEORETICAL FRAMEWORK

This section reviewed the concept, empirical studies and theoretical literature regarding financial leverage and firms’ financial performance in both developed and developing countries. The discussion in this section is organized under four main headings: measures of financial leverage; measurement of firms’ performance; empirical review on the effects of financial leverage on firms’ financial performance and theoretical framework.

2.1 Measures of Financial Leverage

The most commonly used measures of financial leverage according to Bierman (1970), are debt ratio, debt-equity ratio and interest coverage. Debt ratio and debt-equity ratio can be expressed either in terms of book values or market values. The market value to financial leverage is theoretically more appropriate because market values reflect the current attitude of investors. But it is difficult to get reliable information on market values in practice. The market values of securities fluctuate quite frequently. Bowman (1980) revealed that the cross-sectional correlation between book value and market value of debt is very large, so that misspecification due to using book value measures is probably fairly small.

According to Myers (1977), managers focused on book value leverage ratios because debt is better supported by assets in place than it is by growth opportunities implicit in asset market prices. In support of this, Fama and French (2000) argued that most of the theoretical predictions on leverage apply to book value. Similarly, Thies and Klock (1992) suggested that book ratios better reflect management’s target debt ratios. The market value of equity is dependent on a number of factors which are beyond the direct control of a firm. Therefore, using market values according to Thies & Klock (1992) may not reflect the underlying alterations within the firm. In fact, corporate treasurers often explicitly claim to use book ratios to avoid distortions in their financial planning caused by the volatility of market prices. A similar rationale is often heard from rating agencies (Titman & Wessels, 1988). Chen (2004), also argued that the use of book values helps avoid the limitations of missing
information such as the information relating to the proportion of company stocks issued and openly traded on the stock exchange as well as capital gains in arising from a dramatic rise in asset prices. Prominent among all the arguments in favour of book values is the fact that from a more realistic point of view, the market value of debt is not readily available. Based on the foregoing arguments, debt was measured in this study using book values.

Similarly, the interest coverage as a measure of financial leverage is commonly known as coverage ratio. It indicates the capacity of a company to meet fixed financial charges. The reciprocal of interest coverage, that is, interest divided by earnings before interest & taxes (EBIT), is a measure of the firm’s income gearing. Again, by comparing a company’s coverage ratio with an accepted industry standard, investors can get an idea of financial risk. However, this measure according to Bierman (1970) suffered from certain limitations. First, to determine the company’s ability to meet fixed financial obligations, it is the cash flow information, which is relevant, not the reported earnings. During recessionary economic conditions, there can be wide disparity between the earnings and the net cash flows generated from operations. Second, this ratio, when calculated on past earnings, does not provide and guide regarding future riskiness of the company. Third, it is only a measure of short-term liquidity rather than of leverage.

Harris and Raviv (1991) argued that empirical analysis of financial leverage is fraught with difficulty, and interpretation of results must be subjected to an awareness of the difficulties involved in measuring both leverage and performance. Prior studies have shown that both level of leverage (Bevan & Danbolt, 1999; Bevan & Danbolt, 2002; Rajan & Zingales, 1995; Titman & Wessels, 1988) and determinants of leverage (Bevan & Danbolt, 1999; Bevan & Danbolt, 2002) differ significantly according to definition of leverage adopted.

In addition, Titman and Wessels (1988), argued that the aggregate measure of total debt ratio could not be used alone because theory of financial leverage have different implications for different type of debt, and the predicted coefficients in the structural model may differ according to whether debt ratios are measured in terms of book or market values. In lending support to this argument, Bevan and Danbolt (2002), maintained that given the predominance of short-term debt instruments in corporate financial structure, analysis based solely upon long-term debt provide limited insight into the mechanisms which operate in the financial and corporate sectors. Based on the foregoing arguments, this study adopted four measures of leverage namely: short-term debt ratio; long-term debt ratio; aggregate measure of total debt ratio; and total debt-equity ratio.

2.2 Measurement of Firms’ Performance

The concept of performance is a controversial issue in finance largely because of its multi-dimensional meanings (Prahalathan & Ranjany, 2011). Performance can be studied from two interconnected points of view: financial and organizational; a company’s performance can be measured based on variables that involve productivity, returns, growth or even customer satisfaction. Financial performance (reflected in profit maximization, maximizing return on assets and maximizing shareholder return) is based on the firm’s efficiency (Chakravarthy, 1986).

The classical indicators used in financial analysis to measure performance have been the return on investment; leverage; capital efficiency; liquidity; cash flow; inventory turnover and receivables turnover ratio (Vernimmen, 2009). In addition to these factors, the so-called modern value creation indicators are also used. They are accounting indicators: net profit or earnings per share; operating profit or EBITDA; return on assets (ROA) and return on equity (ROE); hybrid indicators (accounting and financial): economic value added (EVA); cash flow
return on investment (CFROI); financial indicators: net present value (NPV) and market indicators: market value added and total shareholder return (Vernimmen, 2009).

Moreover, Palepu, Healy and Bernard (2000), stated that there are two ways to analyze financial performance. First is the financial ratio, which assessed how various line items in a firm’s financial statements relate to one another and how they reflect the financial health of the firm. Second is cash flow analysis, which allows managers to examine a firm’s liquidity and how the firm is managing its operation, investment and financing cash flows.

2.3 Empirical Review of the Effects of Financial Leverage on Firms’ Performance

Some theories predict positive relationship between leverage and firm’s performance, others predict negative relationship and MM proposition I predicts the irrelevance of debt-equity choice on the value of a firm. This section is therefore devoted to reviewing empirical studies on financial leverage and firms’ performance conducted around the world in order to validate theoretical predictions.

Zeitun and Tian (2007), investigated the effect of capital structure on corporate performance of corporations in Jordan using a panel data approach of 167 companies for a period of 15 years from 1989 to 2003. The study found that the short term debt to total assets (STDTA) as a measure of leverage has a significantly positive effect on the market performance measured by Tobin’s Q. Berger and Bonaccorsi di Patti (2006) study’s of United States banking industry using parametric measure of profit efficiency as indicator to measure agency costs, found that higher leverage is associated with better firm performance. Margaritis and Psillaki (2007) also found that financial leverage has a significant positive relationship with firm performance in New Zealand.

Mwangi, Makau and Kosimbei (2014), investigated the relationship between capital structure and performance of 42 non-financial companies listed in the Nairobi Securities Exchange, Kenya. The study employs panel data models (random effects and feasible generalized least square [FGLS]) and found that financial leverage is statistically negatively related to performance measured by return on assets and return on equity. Maina and Kondongo (2013) examined the effects of debt-equity ratio on performance of firms listed on the Nairobi Securities Exchange for the period 2002- 2011. The result also revealed that significant negative relationship exists between debt-equity ratio and all measures of performance.

Ebaid (2009) carried out a study to investigate the impact of choice of capital structure on the performance of firms in Egypt. The result revealed that leverage has no relationship with firms’ performance. Maroko (2014) examined the influence of capital structure on organizational financial performance of firms listed on Nairobi Securities Exchange. The findings showed that positive relationship exist between financial leverage, cost of equity, debt interest and organization financial performance.

Gweyi and Karanja (2014) investigated the effect of financial leverage on firm performance of deposit taking savings and credit co-operative in Kenya. The study utilized secondary data sourced from financial statements of 40 savings and credit co-operative societies (SCCOS) sampled for the study from 2000 to 2012. The result showed perfect positive correlation between financial leverage surrogated by debt-equity ratio and performance measured by ROE and profit after tax. On the other hand, the result also revealed a weak positive correlation between debt-equity ratio and performance proxy by ROA and income growth.
Innocent et al. (2014) conducted a study on the effect of financial leverage on financial performance: evidence from quoted pharmaceutical companies in Nigeria for the period 2001-2012. The results showed that debt ratio and debt-equity ratio have negative relationship with ROA, while interest coverage ratio has a positive relationship with ROA in Nigerian pharmaceutical industry.

Thaddeus and Chigbu (2012) studied the effect of financial leverage on bank performance using 6 banks from Nigeria. Multiple regression technique was used to establish whether relationship exist between financial leverage and performance of sampled banks. The findings show mixed results. While some banks reported positive relationship between leverage and performance, others revealed negative relationship between leverage and performance.

Laurent (2002) studied the relationship between leverage and corporate performance in France, Germany and Italy. The study found mixed evidence depending on the country; while negative relationship was reported in Italy, the relationship between leverage and corporate performance is significantly positive in France and Germany.

Akhtar, Javed, Maryam and Sadia (2012), examined the relationship between financial leverage and financial performance using 20 listed companies from the Fuel and Energy Sector of Pakistan during the period 2000-2005. The findings showed positive relationship between financial leverage and all measures of financial performance except ROA and dividend cover ratio.

Akande (2013), applied the Ordinary Least Square (OLS) regression analysis on panel data collected from financial statements of 10 Nigerian firms over 20 years from 1991-2010. The findings show that positive relationships exist between DC and ROE, EPS and DPS, while negative relationship exists between DC and ROA.

Aburub (2012) investigated the impact of capital structure on the performance of 28 companies listed in Palestine Stock Exchange during 2006 to 2010. Results showed that capital structure has a positive effect on firm performance. Onaolapo and Kajola (2010) investigated the effect of capital structure on financial performance of companies listed on Nigeria Stock Exchange. This study was performed using 30 non-financial companies in 15 industry sectors in a 7-year period from 2001 to 2007. The results showed that financial leverage (debt ratio) has a significant negative effect on financial performance (ROA and ROE) of sampled firms.

Fosu (2013), examined the relationship between capital structures and firm performance using panel data approach comprising 257 South African firms’ for a period 1998-2009. The results uncover evidence that provides support for significant positive relationship between financial leverage and firms’ performance. David and Olorunfemi (2010) studied the impact of capital structure on corporate performance of firms in the Nigerian petroleum industry for the period 1999-2005. The study found that there is positive relationship between leverage and firms’ performance surrogated by earning per share and dividend per share.

Chinaemerem and Anthony (2012), carried out a study on the impact of capital structure on financial performance of Nigerian firms using a sample of 30 non-financial quoted companies on the Nigerian Stock Exchange (NSE) for a period of 7 years from 2004-2010. Panel data for the selected companies were generated and analyzed using ordinary least squares (OLS) method of estimation. The result showed that a firm’s financial leverage surrogated by debt ratio has a significantly negative relationship with the firm’s financial performance surrogated by ROA and ROE. Al-Taani (2013), investigated the relationship between capital structure and firms’ performance across 45 Jordanian manufacturing companies listed on Amman Stock Exchange for a period of 5 years from 2005-2009. The result showed that there is no significant relationship between STDTA and ROA, TDE and
ROA, STDTA and PM, LTDTA and PM, and TDE and PM. However, the result also revealed that significant negative relationship exists between LTDTA and ROA.

Leon (2013), investigated the impact of capital structure on financial performance of 30 listed manufacturing firms in Sri Lanka for a period of 5 years from 2008-2012. The result showed on one hand, that there was a significant negative relationship between leverage and return on equity, and on the other hand, there was no significant relationship between leverage and return on assets.

Espireh, Dadgarnejad and JerJerzadeh (2013), investigated the association between capital structure and financial performance of 380 companies listed on Tehran Stock Exchange (TSE) for a period of 11 years from 2001-2013, using the pooled data regression technique. The result showed that debt to common equity was significantly negatively associated with ROC, while short-term debt to common equity is significantly positively associated with it. Results also indicated that debt to asset ratio has a significant negative relationship with ROA. However, the result also confirmed that no significant relationship between financial leverage (debt to asset ratio, short-term debt to asset ratio, long-term debt to asset ratio and long-term debt to common equity) and all financial performance variables.

Rehman (2013) investigated the relationship between financial leverage and financial performance of 35 listed sugar companies in Pakistan for a period of 6 years from 2006-2011. The result showed that financial leverage has a positive relationship with ROA and sales growth, and negative relationship with EPS, NPM and ROE. Yoon and Jang (2005) conducted a study on the relationship between return on equity (ROE), financial leverage and size of 62 restaurant firms in US for the period 1998 to 2003 using Ordinary Least Squares (OLS) regressions. Result showed that high leveraged firms were less risky in both market and accounting-based performance measures. The results also found support for positive relationship between financial leverage and both measures of performance.

Omowunmi (2012) examined the effect capital structure on corporate performance of 101 quoted Nigerian firms for a period of 5 years from 2003-2007. The study employed panel data analysis using fixed-effect estimation, random-effect estimation and pooled regression model. The result revealed that financial leverage has a significant negative effect on return on asset, and significant positive relationship with Tobin’s Q.

Evidence from the review of above empirical studies revealed that there is no consensus on the effects of financial leverage on firms’ performance, as such; further research is needed to uncover the relationship. This study therefore, provides empirical evidence and contributes to existing body of knowledge by investigating the effects of financial leverage on firms’ performance using non-financial quoted firms’ in Nigeria.

2.4 Theoretical Framework

This study is firmly rooted in the trade-off and pecking order theories because both theories predict that the choice of financial leverage affect firms’ performance. While the trade-off theory expects a positive relationship between leverage and firms’ performance, the pecking order theory predicts negative relationship between leverage and firms’ performance. In addition, both theories give much emphasis on debt and have preference for debt over equity than all other theories reviewed. In a study that intends to shed light on how leverage affects firms’ performance, it would be expected that theories that support the use of leverage should form the theoretical basis for such study.

The trade-off theory suggests that a firm set a target leverage ratio and then steadily moves towards it in order to improve performance. All other theories did not have a target debt-equity ratio in sight and cannot be relied upon by this study. The inclusion of the pecking order theory was justified by the fact that as observed by Shyam-sunder and Myers (1999), the theory is a corporate financing activity that causes the least inconvenience to the
management. In addition, it is the issues with the tax-based theory, the bankruptcy costs theory and agency costs theory that led to the postulation of the trade-off theory.

Agency costs theory was not considered as one of the ideal theoretical framework for this study because our scope is limited to only financial leverage variables and does not include ownership structure variables. According to Warokka (2008), the exclusion of ownership structure variables may bias tests of the agency costs hypothesis of the effects of leverage on firms’ performance. Warokka argued that ownership structure as well as financial leverage variables should be included in studies of agency costs, since the separation of ownership and control that creates the agency costs.

Additionally, Berger and Bonaccorsi di Patti (2002) asserted that measures of firms’ performance are usually ratios fashioned from financial statements or stock market prices, such as industry-adjusted operating margins or stock market returns. These measures do not account for the effects of differences in exogenous market factors that affect firm value but are beyond management’s control and therefore cannot reflect agency costs. Thus, the tests according to Berger and Bonaccorsi di Patti (2002) may be confounded by factors that are unrelated to agency costs. They argued that profit efficiency is the best indicator of firm performance when it comes to testing agency costs hypothesis. Since profit efficiency is outside the scope of this study, we cannot rely on agency costs theory to avoid measurement problem usually associated with using accounting and market performance measures to test agency costs hypothesis.

Based on the reasons advanced above, this study therefore, adopted the trade-off and pecking order theories as its theoretical framework. The discussions on these two theories are presented below.

2.4.1 Trade-off Theory

The trade-off theory could be traced to the debate over the Modigliani and Miller (1958) irrelevance propositions, which state that in a perfect capital market situation, the choice between debt and equity is irrelevant. Additionally, Modigliani and Miller (1963) argued that, when corporate taxation is introduced to their original Modigliani and Miller (1958) irrelevance proposition, firms should be 100% debt financed because of the tax advantage of debt. However, introducing bankruptcy costs into this model implies that the optimal capital structure becomes a trade-off between the tax advantage of debt and the costs of bankruptcy (Myers, 1984).

Similarly, the trade-off theory of leverage is that in which firms’ trade-off the benefits of debt financing against the cost of debt. In other words, firms’ trade-off the benefits of debt (tax shields) against the higher interest rates and bankruptcy cost. A firm’s optimal debt ratio is usually viewed as determined by a tradeoff of the costs and benefits of borrowing, holding the firm’s assets and investment plans constant. The firm is portrayed as balancing the value of interest tax shields against various costs of bankruptcy or financial embarrassment (Myers, 1984).

According to the trade-off theory, higher profitability lowers the expected costs of distress, and firms increase their leverage to take advantage of tax shield benefits. Therefore, leverage and performance are positively related. Agency theory supports this positive relationship between leverage and performance because of the free cash flow theory of Jensen (1986).

Myers (1984) argued that firms that follow the trade-off theory set a target leverage ratio and then gradually move towards it. He argued further that managers may be reluctant to issue equity if they feel that it is undervalued in the market. An optimal capital structure is achieved when the marginal present value of tax shield on additional debt is equal to the marginal present value of the costs of financial distress on additional debt. Ebaid (2009)
asserted that leverage mitigates lower agency costs since the firm’s reputation and manager’s wages are at stake. Leverage impacts positively on firm’s performance by limiting conflicts between shareholders and managers resulting from having excess cash. However, higher leverage implies higher costs of financial distress and higher commitment to fulfill future obligations in terms of principal and fixed interest payments. Miller (1977) argued that the cost of higher leverage is lower than its benefits, implying that the choice of leverage over equity is worthwhile.

The trade-off theory suggests that those firms’ with higher level of retained earnings, i.e. profitable firms tend to have higher debt levels because they can effectively take advantage of tax shields on interest. In addition, since these companies have higher operating profits, the probability and costs of financial distress are also lower. Consequently, the trade-off theory predicts positive relationship between firms’ leverage ratios and their performance.

2.4.2 Pecking Order Theory

In contrast to the trade-off theory, the pecking order theory does not suggest a target leverage ratio that firms’ should aim in order to improve performance. Donaldson (1961) founded the pecking order theory when he conducted an interview survey of 25 large United States firms, and concluded that management strongly prefers to use internal source of funds over external sources, unless internal sources are not available. Later, Myers (1984) and Myers and Majluf (1984), provided a theoretical justification of Donaldson’s (1961) results. They argued that information plays a pivotal role on debt-equity choice decision of managers and investors. They maintained that managers will hesitate to issue equity if they feel that it is undervalued by the market, and investors too are aware that managers will hesitate to issue new equity when it is underpriced. Thus, both managers and investors react according to information available to them. Based on this argument, if managers tend to issue undervalued equity (low priced equity), the wealth will be transferred to the investors against the shareholders’ benefits and wealth. In this situation, internal funds and debt will be preferred to equity. Myers (1984) referred to this as the ‘pecking order theory’ of financing. The theory states that firms prefer to finance new investment first internally with retained earnings, second with debt, and by issuing new equity as last resort. Hence, a negative relationship is expected between leverage and performance.

Pecking order theory suggests that there is no well-defined optimal leverage, because there two kinds of equity, internal and external, one at the top of the pecking order and one at the bottom. The pecking order financing theory, as observed by Shyam-Sunder and Myers (1999), is a corporate financing activity that causes the least inconvenience to the management. The pecking order theory expects a negative relationship between financial leverage and firms’ performance since the theory considers internal financing more superior to debt, and profitable firms prefer internal financing over debt.

3.0 Methodology

This section presents the procedures and techniques used by the researcher in data collection and analysis. Specifically, the methodological issues discussed in this section include: population of the study; data sources; variables measurement; model specification; methods of estimation and diagnostic tests.

3.1 Population

The population of this research is made up of all the non-financial firms’ quoted on the Nigerian Stock Exchange that were active between 2005 and 2014. This is because the
leverage of non-financial firms’ is not affected by deposit insurance scheme and minimum capital requirement that financial institutions are expected to keep with the Central Bank.

From a total number of 94 non-financial quoted firms’ active between 2005 and 2014 on the floor of the Nigerian Stock Exchange, the researcher deleted 28 firms’ that did not have a complete record on the relevant variables required for analysis. All companies with missing data from 2005 through 2014 were excluded from the population, and this may be due to the firm changing its financial year end or failure to make available its financial statement either to the NSE or on its corporate website resulting to loss of data. In addition, firms’ which have undergone one form of suspension or the other from the NSE resulting to loss of data for a particular financial period were also excluded. Therefore, a population of 66 non-financial quoted firms’ from all the 10 sectors of the NSE was purposely selected for analysis from a total population of 94 non-financial quoted firms’ active on the floor of the Nigerian Stock Exchange between the periods under review. The population of Nigerian listed firms’ used in this study is presented below:
### Table 1: Population of Non-Financial Quoted Firms’ in Nigeria

<table>
<thead>
<tr>
<th>S/N</th>
<th>COMPANY NAME</th>
<th>SECTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Livestock Feeds Plc.</td>
<td>AGRICULTURE</td>
</tr>
<tr>
<td>2.</td>
<td>OKOMU OIL PALM PLC.</td>
<td>AGRICULTURE</td>
</tr>
<tr>
<td>3.</td>
<td>PRESCO PLC</td>
<td>AGRICULTURE</td>
</tr>
<tr>
<td>4.</td>
<td>A.G. LEVENTIS NIGERIA PLC.</td>
<td>CONGLOMERATES</td>
</tr>
<tr>
<td>5.</td>
<td>CHELLARAMS PLC.</td>
<td>CONGLOMERATES</td>
</tr>
<tr>
<td>6.</td>
<td>JOHN HOLT PLC.</td>
<td>CONGLOMERATES</td>
</tr>
<tr>
<td>7.</td>
<td>S C O A NIG. PLC.</td>
<td>CONGLOMERATES</td>
</tr>
<tr>
<td>8.</td>
<td>U A C N PLC.</td>
<td>CONGLOMERATES</td>
</tr>
<tr>
<td>9.</td>
<td>CAPPA &amp; D’ALBERTO</td>
<td>CONSTRUCTION/ REAL ESTATE</td>
</tr>
<tr>
<td>10.</td>
<td>JULIUS BERGER NIG. PLC.</td>
<td>CONSTRUCTION/ REAL ESTATE</td>
</tr>
<tr>
<td>11.</td>
<td>ROADS NIG PLC. (ROADS)</td>
<td>CONSTRUCTION/ REAL ESTATE</td>
</tr>
<tr>
<td>12.</td>
<td>SMART PRODUCTS NIG PLc</td>
<td>CONSTRUCTION/ REAL ESTATE</td>
</tr>
<tr>
<td>13.</td>
<td>UACN PROPERTY DEVELOPMENT CO. PLC</td>
<td>CONSTRUCTION/ REAL ESTATE</td>
</tr>
<tr>
<td>14.</td>
<td>7-UP BOTTLING COMP. PLC.</td>
<td>CONSUMER GOODS</td>
</tr>
<tr>
<td>15.</td>
<td>CADBURY NIGERIA PLC.</td>
<td>CONSUMER GOODS</td>
</tr>
<tr>
<td>16.</td>
<td>FLOUR MILLS NIG. PLC.</td>
<td>CONSUMER GOODS</td>
</tr>
<tr>
<td>17.</td>
<td>GUINNESS NIG PLc</td>
<td>CONSUMER GOODS</td>
</tr>
<tr>
<td>18.</td>
<td>N NIG. FLOUR MILLS PLC.</td>
<td>CONSUMER GOODS</td>
</tr>
<tr>
<td>19.</td>
<td>NATIONAL SALT CO. NIG. PLC.</td>
<td>CONSUMER GOODS</td>
</tr>
<tr>
<td>20.</td>
<td>NESTLE NIGERIA PLC.</td>
<td>CONSUMER GOODS</td>
</tr>
<tr>
<td>21.</td>
<td>NIGERIAN BREW. PLC.</td>
<td>CONSUMER GOODS</td>
</tr>
<tr>
<td>22.</td>
<td>NIGERIAN ENAMELWARE PLC.</td>
<td>CONSUMER GOODS</td>
</tr>
<tr>
<td>23.</td>
<td>P Z CUSSONS NIGERIA PLC.</td>
<td>CONSUMER GOODS</td>
</tr>
<tr>
<td>24.</td>
<td>UNILEVER NIGERIA PLC.</td>
<td>CONSUMER GOODS</td>
</tr>
<tr>
<td>25.</td>
<td>UNION DICON SALT PLC.</td>
<td>CONSUMER GOODS</td>
</tr>
<tr>
<td>26.</td>
<td>VITAFOAM NIG PLC.</td>
<td>CONSUMER GOODS</td>
</tr>
<tr>
<td>27.</td>
<td>VONO PRODUCTS PLC.</td>
<td>CONSUMER GOODS</td>
</tr>
<tr>
<td></td>
<td>Company Name</td>
<td>Industry</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>28.</td>
<td>GLAXO SMITHKLINE CONSUMER NIG. PLC.</td>
<td>HEALTH CARE</td>
</tr>
<tr>
<td>29.</td>
<td>MAY &amp; BAKER NIGERIA PLC.</td>
<td>HEALTH CARE</td>
</tr>
<tr>
<td>30.</td>
<td>MORISON INDUSTRIES PLC.</td>
<td>HEALTH CARE</td>
</tr>
<tr>
<td>31.</td>
<td>NEIMETH INTERNATIONAL PHARMACEUTICALS PLC</td>
<td>HEALTH CARE</td>
</tr>
<tr>
<td>32.</td>
<td>PHARMA-DEKO PLC.</td>
<td>HEALTH CARE</td>
</tr>
<tr>
<td>33.</td>
<td>NCR (NIGERIA) PLC.</td>
<td>ICT</td>
</tr>
<tr>
<td>34.</td>
<td>TRIPPLE GEE &amp; CO</td>
<td>ICT</td>
</tr>
<tr>
<td>35.</td>
<td>ASHAKA CEM PLC</td>
<td>INDUSTRIAL GOODS</td>
</tr>
<tr>
<td>36.</td>
<td>AVON CROWNCAPS &amp; CONTAINERS</td>
<td>INDUSTRIAL GOODS</td>
</tr>
<tr>
<td>37.</td>
<td>BERGER PAINTS PLC.</td>
<td>INDUSTRIAL GOODS</td>
</tr>
<tr>
<td>38.</td>
<td>BETA GLASS CO PLC.</td>
<td>INDUSTRIAL GOODS</td>
</tr>
<tr>
<td>39.</td>
<td>CAP PLC</td>
<td>INDUSTRIAL GOODS</td>
</tr>
<tr>
<td>40.</td>
<td>LAFAARGE AFRICA PLC.</td>
<td>INDUSTRIAL GOODS</td>
</tr>
<tr>
<td>41.</td>
<td>CEMENT CO. OF NORTH NIG. PLC</td>
<td>INDUSTRIAL GOODS</td>
</tr>
<tr>
<td>42.</td>
<td>CUTIX PLC.</td>
<td>INDUSTRIAL GOODS</td>
</tr>
<tr>
<td>43.</td>
<td>DN MEYER PLC</td>
<td>INDUSTRIAL GOODS</td>
</tr>
<tr>
<td>44.</td>
<td>FIRST ALUMINIUM NIGERIA PLC.</td>
<td>INDUSTRIAL GOODS</td>
</tr>
<tr>
<td>45.</td>
<td>NIGERIAN ROPES PLC.</td>
<td>INDUSTRIAL GOODS</td>
</tr>
<tr>
<td>46.</td>
<td>GREIF PLC</td>
<td>INDUSTRIAL GOODS</td>
</tr>
<tr>
<td>47.</td>
<td>PREMIER PAINTS PLC.</td>
<td>INDUSTRIAL GOODS</td>
</tr>
<tr>
<td>48.</td>
<td>ALUMINIUM EXTRUSION IND. PLC.</td>
<td>NATURAL RESOURCES</td>
</tr>
<tr>
<td>49.</td>
<td>B.O.C. GASES PLC.</td>
<td>NATURAL RESOURCES</td>
</tr>
<tr>
<td>50.</td>
<td>TOTAL OIL PLC</td>
<td>OIL &amp; GAS</td>
</tr>
<tr>
<td>51.</td>
<td>CONOIL PLC</td>
<td>OIL &amp; GAS</td>
</tr>
<tr>
<td>52.</td>
<td>ETERNA PLC.</td>
<td>OIL &amp; GAS</td>
</tr>
<tr>
<td>53.</td>
<td>FORTE OIL</td>
<td>OIL &amp; GAS</td>
</tr>
<tr>
<td>54.</td>
<td>MOBIL OIL NIG PLC.</td>
<td>OIL &amp; GAS</td>
</tr>
<tr>
<td>55.</td>
<td>MRS OIL NIGERIA PLC.</td>
<td>OIL &amp; GAS</td>
</tr>
<tr>
<td>56.</td>
<td>NAVITUS ENERGY PLC</td>
<td>OIL &amp; GAS</td>
</tr>
<tr>
<td>57.</td>
<td>OANDO PLC</td>
<td>OIL &amp; GAS</td>
</tr>
<tr>
<td>58.</td>
<td>JAPAUL OIL &amp; MARITIME SERVICES</td>
<td>OIL &amp; GAS</td>
</tr>
</tbody>
</table>
3.2 Data Sources

This study utilized the financial information of Nigerian non-financial listed firms’ for the period 2005-2014. Data was sourced from the annual reports and financial statements of companies, daily official list and fact book of the Nigerian Stock Exchange for the period under review. The financial statement/annual reports were obtained from the corporate websites of the quoted companies, library of the NSE Kano branch and other websites such as www.proshareng.com, www.demo.streamicm.com and www.resourcedata.com. These financial statements contain balance sheet, profit & loss account, cash-flow statement, notes to financial statements and profile of the firms’ among others. For the purpose of this study, information on short-term debt, long-term debt; total debt ratio; total debt-equity ratio; return on equity; return on asset and Tobin’s Q for 66 non-financial quoted firms’ in Nigeria were utilized. Short-term debt ratio, long-term debt ratio, total debt ratio and total debt equity ratio were computed using the information on the balance sheet and notes to financial statements. Return on equity and return on asset were computed using the information on the profit & loss account and balance sheet. Tobin’s Q was computed using the information on the balance sheet and the NSE daily official list.

3.3 Variables Measurement

This subsection presents the financial leverage and firms’ financial performance variables that was adopted for this study, together with their measurements. In measuring the financial leverage variables which is the independent variables, we followed the procedure adopted by Omowunmi (2012). Financial performance which is the dependent variables was measured using the formulas provided by Pandey (2010). Tables 2 and 3 present the study’s variables and their measurements.

<table>
<thead>
<tr>
<th>Table 2: Definition of Financial Leverage Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable Name</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Short-term debt ratio (STDR) [independent variable]</td>
</tr>
<tr>
<td>Long-term debt ratio (LTDR) [independent variable]</td>
</tr>
<tr>
<td>Total debt ratio (TDR)</td>
</tr>
</tbody>
</table>
### 3.3 Model Specification

The analytical panel data model tested in this study is stated as follows:

Setting $y_{it} = \text{PERF}_{it}$ and $x_{it} = \text{STDR}_{it}, \text{LTDR}_{it}, \text{TDR}_{it}, \text{TDER}_{it}$

Then $y_{it} = \alpha_i + \beta_j x_{it} + \mu_{it}$

\[ (1) \]

Where:

$y_{it} =$Vector of dependent variables, such that $y_{it} = (\text{ROA}, \text{ROE}, \text{Tobin’s Q})$

$x_{it} =$Vector of independent variables, such that $x_{it} = (\text{STDR}, \text{LTDR}, \text{TDR}, \text{TDER} )$

\[ i = 1,2,3,\ldots,,\ldots,\ldots,\ldots,\ldots, 66 \]

\[ j = 1,2,3,\ldots,,\ldots,\ldots,\ldots,\ldots, 10 \]

\[ t = 2005, 2001, 2002,\ldots, 2014 \]

### 3.4 Methods of Estimation

Descriptive statistics and Panel data methods were used in this study. Descriptive statistics in the form of mean, median, maximum value and minimum value was used to describe the selected variables. Panel data method was considered more appropriate because the data for this study involves the combination of time series and cross sectional data. Panel data method also allows controlling for unobservable heterogeneity through individual firm effect.

The regression model takes the form of the Pooled Ordinary Least Squares (POLs) Model, Fixed Effects Model (FEM) and Random Effects Model (REM) in order to establish the most appropriate model to use. The conventional identification test and the Hausman’s chi-square statistics for testing whether the fixed effects or a random effect is more appropriate was computed for each model. In addition, the Breusch-Pagan Lagrange Multiplier Test was also conducted to select the best model between Pooled Ordinary Least Squares and Random Effects Model.

### 3.5 Diagnostic Tests

The Hausman test and the Breusch-Pagan Lagrange Multiplier (LM) test for best model selection were used to select the best estimator among the Pooled Ordinary Least Squares, Fixed Effects and Random Effects estimators. Autocorrelation test was conducted to find out whether there is independence of errors. Autocorrelation can be detected and measured by using the Durbin-Watson (D-W) statistic. In this study, D-W statistic was used to detect whether there is presence of autocorrelation in the model. Autocorrelation was
corrected using the Robust Heteroscedasticity- and Autocorrelation Consistent (HAC) standard errors.

In addition, a test for heteroscedasticity was conducted to find out whether the error term has a constant variance. To detect the existence of heteroscedasticity in this study, the White’s test and Group wise heteroscedasticity test was used. Heteroscedasticity was corrected using the Robust Heteroscedasticity- and Autocorrelation Consistent (HAC) standard errors. Finally, Pair Wise Granger causality test was conducted and the direction of causality between financial leverage and firms’ financial performance was detected.

4.0 RESULTS AND DISCUSSIONS

The discussion in this section is presented using three main headings: descriptive analysis, regression analysis and discussion of findings. Each is discussed below:

4.1 Descriptive Analysis

This subsection provides a descriptive analysis of the entire data set used for this study. Table 4 provides the descriptive results for all listed firms’ used in this study. The mean value of short-term debt ratio (STDR) for the entire firms’ stood at 0.220564, meaning that about 22 per cent of the capital of the listed firms’ for the period under review was financed by short-term debt. The minimum and maximum values for STDR are -23.9344 and 11.8132. The negative minimum value for STDR can be attributed to the fact that some of the firms’ in our population had negative shareholders’ equity and very low debt figures resulting to a negative capital. The maximum value of STDR is far higher than the average, and this may be due to the heterogeneity among the firms’ used in this study.

The mean value of long-term debt ratio (LTDR) is -0.0176. This result indicated that on the average during the period under study, firms’ quoted on the Nigerian Stock Exchange do not employed long-term debt in their capital structure. This may be due to the difficulty in assessing long-term finance and inefficiency in the Nigerian capital market. This finding is consistent with Salawu (2007) and Omowunmi (2012). The result further revealed that listed firms’ in Nigeria relied more on short-term debt financing than long-term debt financing. In addition, the total-debt ratio (TDR) had a mean value of 0.202486 and the median value of 0.322540 over a 10-year period (2005-2014). These results suggested that listed firms’ in Nigeria rely less on debt as only approximately 20 per cent of their capital were financed by debt. Similarly, the mean value for total-debt equity ratio (TDER) stood at 0.537286, signifying that on the average, firms’ listed on the NSE employed more equity than debt in their debt -equity mix during the period under investigation. This may be due to difficulty in assessing external financing or high interest on debt. The minimum and maximum values for TDER are -96.1225 and 64.8854 respectively. This is a testimony that total debt-equity mix of listed firms’ vary substantially, and this may be due to negative equity and zero value for debt recorded by some of the firms’ in our population of study. The wider disparity may also be accounted for by the fact that firms’ used in this study were drawn from all sectors of the NSE.

The descriptive analysis of the dependent variables revealed that over the period 2005- 2014, return on equity (ROE), return on asset (ROA) and Tobin’s Q were averaged 0.307502, 0.107689 and 1.99336 respectively. These results revealed that listed firms’ recorded a moderate performance when ROE was used as a proxy for firms’ financial performance; low performance when ROA was used and very high performance when Tobin’s Q was used as a measure of firms’ financial performance. The mean value for ROE indicates that for every ₦1 worth of equity, about 31 kobo was generated as return for shareholders’. Managers’ of the listed firms’ used in this study would prefer their
performance to be judged using a market performance measure (Tobin’s Q) than an accounting measure (ROA). The high ratio for Tobin’s Q (1.99336) as pointed out by Omowunmi (2012) could be as a result of increase in equity and share prices. These results further suggested that quoted firms’ under study will prefer to finance their capital with equity rather than debt, as evidenced by high ROE and Tobin’s Q compared to ROA. The value of both ratios (ROE and Tobin’s Q) is highly influenced by the value of shareholders’ equity. A Tobin’s Q of greater than 1 indicates that the firm’s stock is more expensive than its replacement cost, meaning that the stock is overvalued. This probably explains the high preference for equity over debt that we have seen with the total debt-equity ratio.

Table 4: Descriptive Result of Aggregate Data Set

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MEAN</th>
<th>MEDIAN</th>
<th>MINIMUM</th>
<th>MAXIMUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>STDR</td>
<td>0.220564</td>
<td>0.145760</td>
<td>-23.9344</td>
<td>11.8132</td>
</tr>
<tr>
<td>LTDR</td>
<td>-0.0175598</td>
<td>0.00000</td>
<td>-82.3701</td>
<td>8.60379</td>
</tr>
<tr>
<td>TDR</td>
<td>0.202486</td>
<td>0.291080</td>
<td>-106.305</td>
<td>11.8132</td>
</tr>
<tr>
<td>TDER</td>
<td>0.537282</td>
<td>0.322540</td>
<td>-96.1225</td>
<td>64.8854</td>
</tr>
<tr>
<td>ROE</td>
<td>0.307502</td>
<td>0.238560</td>
<td>-8.10092</td>
<td>18.1653</td>
</tr>
<tr>
<td>ROA</td>
<td>0.107689</td>
<td>0.0912800</td>
<td>-4.31377</td>
<td>9.19763</td>
</tr>
<tr>
<td>TOBQ</td>
<td>1.99336</td>
<td>1.13608</td>
<td>0.0212800</td>
<td>75.7453</td>
</tr>
</tbody>
</table>

Source: Computed from the Financial Statements of Sampled Firms’ and NSE Daily Official Lists for 2005-2014 using GRETL Statistical Software Package

4.2 Regression Analysis

This subsection provides the regression results and analysis of the entire data set used in this study. The 3 dependent variables (ROE, ROA & Tobin’s Q) were regressed on the independent variables (STDR, LTDR, TDR & TDER) using Pooled Ordinary Least Squares (POLS), Fixed Effects Model (FEM) and Random Effects Model (REM). The analysis was carried out with the aid of relevant tables as presented below:

Table 5: Regression Results of Aggregate Data using ROE as Dependent Variable

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Pooled OLS</th>
<th>Fixed Effects</th>
<th>Random Effects (GLS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STDR</td>
<td>0.0106447</td>
<td>0.556856</td>
<td>0.185966</td>
</tr>
<tr>
<td></td>
<td>(0.0020)</td>
<td>(0.1035)</td>
<td>(0.0358)</td>
</tr>
<tr>
<td>LTDR</td>
<td>0.120081</td>
<td>0.831322</td>
<td>0.35004</td>
</tr>
<tr>
<td></td>
<td>(0.0228)</td>
<td>(0.1545)</td>
<td>(0.0673)</td>
</tr>
<tr>
<td>TDR</td>
<td>-0.0130288</td>
<td>-0.572858</td>
<td>-0.193087</td>
</tr>
<tr>
<td></td>
<td>(-0.0025)</td>
<td>(-0.1065)</td>
<td>(-0.0372)</td>
</tr>
</tbody>
</table>
The regression results in Table 5 above revealed that 3 measures of financial leverage (STDR, LTDR & TDR) in their individual levels have no significant effect on ROE as a proxy for firms’ financial performance in all the 3 models: Pooled-OLS, Fixed Effects and Random Effects. However, regression results in Table 4 also revealed that TDER has a significant positive effect on ROE at 1 per cent level of significance in all the 3 models. The table also indicated that the overall effect of leverage on ROE as a measure of financial performance is significant at 1 per cent level in all the 3 models despite low $R^2$. Low $R^2$ does not matter provided the model is significant and besides because of the presence of heterogeneity among firms’ in the panel data, $R^2$ is in most cases very low.

Table 6: Regression Results of Aggregate Data using ROA as Dependent Variable

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Pooled OLS</th>
<th>Fixed Effects</th>
<th>Random Effects (GLS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTANT</td>
<td>0.120836 (5.6678)***</td>
<td>0.119375 (5.7520)***</td>
<td>0.120208 (4.3703)</td>
</tr>
<tr>
<td>STDR</td>
<td>0.417434 (0.1748)</td>
<td>-0.930187 (-0.3861)</td>
<td>-0.207444 (-0.0888)</td>
</tr>
<tr>
<td>LTDR</td>
<td>0.427353 (0.1790)</td>
<td>-0.903115 (-0.3746)</td>
<td>-0.190525 (-0.0816)</td>
</tr>
<tr>
<td>TDR</td>
<td>-0.444363 (-0.1861)</td>
<td>0.905992 (0.3760)</td>
<td>0.181849 (0.0779)</td>
</tr>
<tr>
<td>TDER</td>
<td>-0.00140159 (-0.4460)</td>
<td>-0.00285418 (-0.8384)</td>
<td>-0.00201757 (-0.6361)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.002849</td>
<td>0.193841</td>
<td>0.002849</td>
</tr>
</tbody>
</table>
The regression results in Table 6 when ROA was used as a measure of firms’ performance revealed that the 4 measures of financial leverage used in this study at both individual and group levels have no significant effect on ROA in both Pooled-OLS and Random Effects Models. However, the overall effect of financial leverage on ROA is significant at 1 per cent using the Fixed Effects Model, but not statistically significant at individual levels.

Table 7: Regression Results of Aggregate Data using TOBIN’S Q as Dependent Variable

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Pooled OLS</th>
<th>Fixed Effects</th>
<th>Random Effects (GLS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTANT</td>
<td>1698.25</td>
<td>1451.58</td>
<td>1689.94</td>
</tr>
<tr>
<td></td>
<td>(1.0795)</td>
<td>(0.9031)</td>
<td>(1.0558)</td>
</tr>
<tr>
<td>STD R</td>
<td>-8789.61</td>
<td>22.7545</td>
<td>-8503.21</td>
</tr>
<tr>
<td></td>
<td>(-0.0499)</td>
<td>(0.0001)</td>
<td>(-0.0483)</td>
</tr>
<tr>
<td>LT R</td>
<td>-9173.07</td>
<td>22.722</td>
<td>-8875.56</td>
</tr>
<tr>
<td></td>
<td>(-0.0521)</td>
<td>(0.0001)</td>
<td>(-0.0504)</td>
</tr>
<tr>
<td>T R</td>
<td>8269.13</td>
<td>-22.6671</td>
<td>8000.9</td>
</tr>
<tr>
<td></td>
<td>(0.0469)</td>
<td>(-0.0001)</td>
<td>(0.0454)</td>
</tr>
<tr>
<td>TDER</td>
<td>-19.4261</td>
<td>0.000159993</td>
<td>-18.8284</td>
</tr>
<tr>
<td></td>
<td>(-0.0838)</td>
<td>(0.0000)</td>
<td>(-0.0810)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.000287</td>
<td>0.109619</td>
<td>0.000287</td>
</tr>
<tr>
<td>$F$</td>
<td>0.042263</td>
<td>0.934955</td>
<td>0.042263</td>
</tr>
<tr>
<td></td>
<td>(0.996613)</td>
<td>(0.626009)</td>
<td>(0.996613)</td>
</tr>
<tr>
<td>STD ERROR</td>
<td>35446.66</td>
<td>35466.45</td>
<td>35416.62</td>
</tr>
<tr>
<td>DURBIN-WATSON</td>
<td>1.002319</td>
<td>1.124984</td>
<td>1.002319</td>
</tr>
</tbody>
</table>

Source: Computed from the Financial Statements of Sampled Firms’ and NSE Daily Official Lists for 2005-2014 using GRETL Statistical Software Package

Note: The values in parentheses for variables are t ratios and those against F-statistic are P-values.
Table 7 provides the regression results of the aggregate data set when a market performance measure (Tobin’s Q) was used as surrogate for firms’ financial performance. The results in Table 6 are not statistically significant in all the 3 models. Hence, conclusions can not be drawn using Tobin’s Q. These results make ROE and ROA better measures of firms’ financial performance for our entire data set of firms’ quoted on the Nigerian Stock Exchange during the period under review.

As pointed out earlier, when ROE was used as a measure of firms’ financial performance, all the 3 models (Pooled-OLS, Fixed Effects and Random Effects) are significant at 1 per cent level. We need to carry out a test to choose the best out the 3 models. The next table presents the results of the F-test for best model selection between Pooled Ordinary Least Squares (POLS) and Fixed Effects Models. The null hypothesis is that the cross-sectional units all have common intercept i.e. Pooled-OLS is adequate. The decision rule is that if the test is not significant, the null hypothesis will not be rejected and Pooled-OLS model is considered more appropriate than Fixed Effects model and vice-versa.

Table 8: Results of the F-Test for Best Model Selection

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Model Comparison</th>
<th>P-values</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model1a and 1b</td>
<td>Pooled OLS-Fixed Effects</td>
<td>0.00130593</td>
<td>Fixed Effects model selected</td>
</tr>
</tbody>
</table>

Significant at 10% (*), 5% (**), 1% (***)

Source: Extracted from the GRETL Statistical Software Output
Key: 1 = ROE, a = Pooled-OLS, b = Fixed Effects

The results of the F-test in Table 7 for best model selection between Pooled-OLS and Fixed Effects estimators favoured the selection of Fixed Effect model over the Pooled-OLS model.

Table 9 shows the results of the Hausman Specification Test for best model selection between Fixed Effects and Random Effects. The null hypothesis is that Fixed Effects model is not more appropriate than the Random Effects model. If the test is statistically significant, null hypothesis will be rejected and Fixed Effects model considered as more appropriate. But, if the test is not statistically significant, we fail to reject the null hypothesis and conclude that the Random Effects model is more appropriate.

Table 9: Results of the Hausman Specification Test for Best Model Selection

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Model Comparison</th>
<th>P-values</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1b and 1c</td>
<td>Fixed Effects- Random Effects</td>
<td>0.306125</td>
<td>Random Effects model selected</td>
</tr>
</tbody>
</table>

Significant at 10% (*), 5% (**), 1% (***)

Source: Extracted from the GRETL Statistical Software Output
Key: 1 = ROE, a = Pooled-OLS, b = Fixed Effects, c = Random Effects

The results of Hausman Test in Table 8 for best model selection between Fixed Effects and Random Effects favoured the selection of Random Effects model over the Fixed Effect model. However, using the rule of thumb, a model with higher $R^2$ and low standard error is judged as the best. If we are to follow the rule, Fixed Effects Model will be selected (see Table 5).

The next Table presents the results of the Breusch-Pagan Lagrange Multiplier (LM) test for best model selection between Random Effects and Pooled-OLS. The null hypothesis
in the LM test is that variance various across entities is zero, i.e. no significant difference across units (no panel effects).

**Table 10: Results of the Breusch-Pagan Lagrange Multiplier (LM) Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>Model Comparison</th>
<th>P-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1c and 1a</td>
<td>Random- Pooled- OLS</td>
<td>0.0014532***</td>
<td>Random Effects model selected</td>
</tr>
</tbody>
</table>

Significant at 10% (*), 5% (**), 1% (***)

*Source:* Extracted from GRETL Statistical Software Output

*Key:* 1 = ROE, a = Pooled-OLS, b = Fixed Effects, c = Random Effects

The result of the Lagrange Multiplier Test for best model selection in Table 10 suggests the selection Random Effects model over the Pooled-OLS. On this basis, this study draws its conclusion on the model involving ROE using Random Effects model. The test for best model selection has not been conducted for models involving ROA and Tobin’s Q because in the model involving ROA, only Fixed Effects was statistically significant. On that note, for the model involving ROA, this study draws conclusion using Fixed Effects model. Similarly, for the model involving Tobin’s Q, no model was statistically significant; therefore, inference can not be drawn from their results.

**Table 11: Results of the Test for Autocorrelation**

<table>
<thead>
<tr>
<th>Model</th>
<th>DL</th>
<th>DW</th>
<th>DU</th>
<th>4 - DU</th>
</tr>
</thead>
<tbody>
<tr>
<td>1c</td>
<td>1.8588</td>
<td>1.237167</td>
<td>1.8835</td>
<td>2.1165</td>
</tr>
<tr>
<td>2b</td>
<td>1.8588</td>
<td>2.063149</td>
<td>1.8835</td>
<td>2.1165</td>
</tr>
</tbody>
</table>

*Source:* Extracted from GRETL Statistical Software Output

*Key:* 1 = ROE, 2 = ROA, b = Fixed Effects, c = Random Effects

The results of the test for the presence of Autocorrelation in Table 11 using model 1c revealed 1.8588 for Durbin-Watson lower critical value (DL), 1.237167 for Durbin-Watson statistic (DW) and 1.8835 for Durbin-Watson upper critical value (DU). Since zero (0) is less than DW and DW is less than DL, there is evidence suggesting the presence of first order positive serial autocorrelation. Therefore, we used Generalized Least Squares (GLS) to correct for the autocorrelation. The GRETL statistical software correct autocorrelation and heteroscedasticity problems in Random Effects model using GLS. The Robust (HAC) standard errors also used for correcting heteroscedasticity and autocorrelation are only available for Pooled-OLS and Fixed Effects models in the GRETL statistical software. In GRETL, all Random Effects model by default are Generalized Least Squares (GLS).

Similarly, in model 2b since DU is less than DW, and DW is less than 4 – DU, we conclude that there is no autocorrelation, positive or negative.
Table 12: Results of the Test for Heteroscedasticity

<table>
<thead>
<tr>
<th>Model</th>
<th>P-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1c</td>
<td>0.999991</td>
<td>Not significant, therefore, we fail to reject the null hypothesis, and conclude that heteroscedasticity is not present.</td>
</tr>
<tr>
<td>2b</td>
<td>0</td>
<td>Significant, we reject the null hypothesis, and conclude that heteroscedasticity is present. Therefore, use robust (HAC) standard errors.</td>
</tr>
</tbody>
</table>

Source: Extracted from GRET Statistical Software Output
Key: 1 = ROE, 2 = ROA, a = Pooled-OLS, b = Fixed Effects, c = Random Effects

The test for heteroscedasticity was conducted and the results reported in Table 11 above. The test was carried out to investigate if the variances of the data set are not equal, i.e. if there is heteroscedasticity problem so as to ascertain the best model to cure the disease. White’s test for heteroscedasticity was conducted for model 1c and the Group Wise Heteroscedasticity also known as Wald Distribution Free Heteroscedasticity was used for model 2b. The test was not conducted for Tobin’s Q because all the 3 models under it were not statistically significant. The null hypothesis is heteroscedasticity not present. Of the two tests ran, only the one involving model 1c is not statistically significant, therefore, we fail to reject the null hypothesis and conclude that heteroscedasticity is not present for the model involving ROE, but present in model involving ROA i.e. model 2b. To cater for the problem of heteroscedasticity in model 2b, we used robust (HAC) standard errors. The next table presents the results of model 2b using Robust (HAC) standard errors. One of the advantages of using Robust (HAC) standard errors just like the GLS is that it correct for both heteroscedasticity and autocorrelation.

Table 13: Regression Results using Robust (HAC) Standard Errors

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Dependent variable: Return on Asset (ROA)</th>
<th>( R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTANT</td>
<td>0.119375( \pm ) (36.9429)**</td>
<td>0.193841</td>
</tr>
<tr>
<td>SHORT TERM DEBT RATIO</td>
<td>-0.930187( \pm ) (1.1741)</td>
<td></td>
</tr>
<tr>
<td>(STDR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LONG TERM DEBT RATIO</td>
<td>-0.903115( \pm ) (1.1294)</td>
<td></td>
</tr>
<tr>
<td>(LTDR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL DEBT RATIO (TDR)</td>
<td>0.905992( \pm ) (1.1426)</td>
<td></td>
</tr>
<tr>
<td>TOTAL DEBT EQUITY RATIO (TDER)</td>
<td>-0.00285418( \pm ) (1.7805)*</td>
<td></td>
</tr>
<tr>
<td>R-SQUARED (( R^2 ))</td>
<td>0.193841%</td>
<td></td>
</tr>
<tr>
<td>F-TEST</td>
<td>1.826024( \pm ) (0.000142)**</td>
<td></td>
</tr>
</tbody>
</table>

Significant at 10% (*), 5% (**), 1% (***)

Source: Computed from the Financial Statements of Sampled Firms’ and NSE Daily Official Lists for 2005-2014 using GRET Statistical Software Package
Note: The values in parentheses for variables are t ratios and those against F-statistic are P-values.

Table 13 shows the regression results when the Robust (HAC) standard errors have been applied to correct for the heteroscedasticity problem in the Fixed Effects model when ROA is used as proxy for firms’ financial performance. The results shows slight difference from the regression results in Table 6 before correcting for heteroscedasticity. Total debt equity ratio (TDER) which was not significant on individual basis became significant at 10 per cent level after the application of Robust (HAC) standard errors.

The regression results in Table 13 revealed that STDR, LTDR and TDR in their individual basis have no significant effect on firms’ financial performance proxy by ROA. However, the regression results also revealed that TDER has a significant but negative effect on firms’ financial performance at 10 per cent level when ROA was used to measure firms’ financial performance. Interestingly, the model is statistically significant and can be used to draw conclusions. This is confirmed by the F-statistics of 1.82604 which is significant at 1 per cent level of significance.

4.3 Causality Tests

This section presents the causality test between financial leverage variables and firms’ financial performance variables (ROE and ROA). The next two tables show the results of the Pair wise Granger Causality Test with ROE and ROA as measures of firms’ financial performance respectively. We ran our tests using E-views statistical package as GRETL which we have used for our previous analyses does not have the capacity to run causality test.

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>F-Statistic</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>STDR does not Granger Cause ROE</td>
<td>0.37540</td>
<td>Causality does not run from STDR to Firms’ Performance</td>
</tr>
<tr>
<td>ROE does not Granger Cause STDR</td>
<td>6.60384***</td>
<td>Causality runs from firms’ performance to STDR</td>
</tr>
<tr>
<td>LTDR does not Granger Cause ROE</td>
<td>55.2756***</td>
<td>Causality runs from LTDR to Firms’ Performance</td>
</tr>
<tr>
<td>ROE does not Granger Cause LTDR</td>
<td>2.43707**</td>
<td>Causality runs from firms’ performance to LTDR</td>
</tr>
<tr>
<td>TDR does not Granger Cause ROE</td>
<td>14.9531***</td>
<td>Causality runs from TDR to Firms’ Performance</td>
</tr>
<tr>
<td>ROE does not Granger Cause TDR</td>
<td>5.81347***</td>
<td>Causality runs from firms’ performance to TDR</td>
</tr>
<tr>
<td>TDER does not Granger Cause ROE</td>
<td>5.69297***</td>
<td>Causality runs from TDER to Firms’ Performance</td>
</tr>
<tr>
<td>ROE does not Granger Cause TDER</td>
<td>10.6999***</td>
<td>Causality runs from firms’ performance to TDER</td>
</tr>
</tbody>
</table>

Significant at 10% (*), 5% (**), 1% (***)

Source: Extracted from E-views Statistical Software Output
The results of the Pair Wise Causality Tests in Table 14 revealed that causality does not from STDR to firms’ financial performance (ROE), but causality runs from firms’ financial performance to STDR, meaning that there is unidirectional causality running from firms’ financial performance to STDR. However, when other measures of financial leverage: LTDR, TDR & TDER are considered with the firms’ financial performance measure (ROE), causality runs from both financial leverage and firms’ financial performance. This means that there is bidirectional causality running from financial leverage to firms’ financial performance and from firms’ financial performance to financial leverage. The next Table presents the results of the Pair Wise Granger Causality Tests with ROA as a proxy for firms’ financial performance.

Table 15: Pair wise Granger Causality Tests with ROA as a Measure of Performance

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>F-Statistic</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>STDR does not Granger Cause ROA</td>
<td>3.64399***</td>
<td>Causality run from STDR to Firms’ Performance</td>
</tr>
<tr>
<td>ROA does not Granger Cause STDR</td>
<td>2.73860**</td>
<td>Causality runs from firms’ performance to STDR</td>
</tr>
<tr>
<td>LTDR does not Granger Cause ROA</td>
<td>1.67784</td>
<td>Causality does not run from LTDR to Firms’ Performance</td>
</tr>
<tr>
<td>ROA does not Granger Cause LTDR</td>
<td>1.86180*</td>
<td>Causality runs from firms’ performance to LTDR</td>
</tr>
<tr>
<td>TDR does not Granger Cause ROA</td>
<td>2.18439**</td>
<td>Causality runs from TDR to Firms’ Performance</td>
</tr>
<tr>
<td>ROA does not Granger Cause TDR</td>
<td>3.51582***</td>
<td>Causality runs from firms’ performance to TDR</td>
</tr>
<tr>
<td>TDER does not Granger Cause ROA</td>
<td>0.83810</td>
<td>Causality does not run from TDER to Firms’ Performance</td>
</tr>
<tr>
<td>ROA does not Granger Cause TDER</td>
<td>1.04926</td>
<td>Causality does not run from firms’ performance to TDER</td>
</tr>
</tbody>
</table>

Significant at 10% (*), 5% (**), 1% (***)

Source: Extracted from E-views Statistical Software Output

Table 15 which show the results of Pair Wise Granger Causality Tests when ROA was used as a measure of firms’ financial performance revealed that causality runs from STDR and TDR to firms’ financial performance and from firms’ financial performance to STDR and TDR. However, causality does not run from LTDR to firms’ financial performance but runs from firms’ financial performance to LTDR. But, when TDER was considered as a measure of financial leverage, there is no causality at all, meaning that causality does not run from either financial leverage to firms’ financial performance or from firms’ financial performance to financial leverage. There is no causal relationship between financial leverage (TDER) and firms’ financial performance measured by ROA.
4.4 Discussion of Findings

In this study, three variables: return on equity (ROE), return on asset (ROA) and Tobin’s Q were used as surrogates for firms’ financial performance for 66 non-financial firms’ quoted on the NSE over the period 2005-2014. The panel data framework in the form Pooled-OLS, Fixed Effects and Random Effects models were applied in assessing the effects of financial leverage on firms’ financial performance. Two accounting measures of firms’ financial performance as return on equity and return on asset were considered the most appropriate measures of firms’ financial performance in the present study. This follows the adequacy of these two measures over the market performance measure (Tobin’s Q) in the regression analysis of the entire data set. Random Effects model was considered the best model when ROE was used as a measure of firms’ financial performance, while Fixed Effects model was the most appropriate when ROA was used as proxy for firms’ financial performance. The discussion of findings is based on the results of the descriptive as well as the regression analysis of the entire data set.

The descriptive analysis of the entire data set revealed that firms’ quoted on the Nigerian Stock Exchange (NSE) relied more on short-term debt than long-term debt in the total debt portion of their capital structure. This may be due to the ease of securing overdrafts and other forms of short-term debt instruments compared to long-term debt. Another reason could be that due to the fact that the capital markets of emerging economies is not as developed as those of advanced countries’, firms’ in the emerging economies find it difficult to raise external funds. This finding is consistent with those of Maina and Kondongo (2013) and Espireh et al. (2013). The descriptive results also revealed that firms’ listed on the NSE had more preference for equity over debt. These results did not lend support to the Pecking Order Hypothesis which states that firms’ would prefer to finance their investment first with internal financing (retained earnings), then go for debt if additional financing is required and lastly issue equity as a last resort.

Similarly, the descriptive analysis of the entire data set also revealed that the market performance measure (Tobin’s Q) has the highest value, followed by the accounting measures: return on equity (ROE) and then return on asset (ROA). However, the superiority of Tobin’s Q over the accounting measures (ROA and ROE) was not validated by the inferential statistics (regression analysis). The t-values and F-statistics for Tobin’s Q as a measure of firms’ financial performance were not significant in any of the 3 models (Pooled-OLS, Fixed Effects and Random Effects) and can not be used to draw conclusions. These make ROE and ROA as the most robust measures of firms’ financial performance in the present study. The descriptive account of the aggregate data rated ROE over ROA and the results validated by the regression analysis, following the adequacy of ROE in all the 3 models and the results of diagnostic tests. Therefore, ROE is considered as the most robust measure of firms’ financial performance in this study. Conclusions are drawn on the basis of ROE.

The regression results of the entire data set revealed that total debt-equity ratio (TDER) has a significant positive effect on firms’ financial performance measured by return on equity (ROE) at 1 per cent level of significance in Pooled Ordinary Least Squares (POLS), Fixed Effects Model (FEM) and Random Effects Model (REM). This is similar to the findings of Gweyi and Karanja (2014), but contrary to those of Rehman (2013) and Velnampy and Niresh (2012). The finding is consistent with the Trade-off Theory but contrary to the Pecking Order Hypothesis.

In addition, the results of the Pair Wise Granger Causality Test conducted between TDER and ROE revealed a bidirectional causality running from TDER to firms’ financial performance and vice versa. The causality test support the positive relationship between...
TDER and ROE thereby making the regression results more reliable for drawing conclusions and making policy implications.

Alternatively, when ROA was used as a measure of firms’ financial performance, the regression results on the aggregate data set revealed that TDER has a significant but negative effect on firms’ financial performance in the Fixed Effects model. The Pair Wise Granger Causality Test conducted between TDER and ROA did not support the regression results of the aggregate data that causality runs from TDER to firms’ financial performance. As such, we cannot rely on this negative relationship between TDER and ROA for drawing conclusions and making recommendations. These findings are contrary to those found by Gweyi and Karanja (2014) and Rehman (2013). The regression result is consistent with the pecking order theory which predicts negative relationship between financial leverage and firms’ performance.

The regression results on aggregate data further revealed that short-term debt ratio (STDR) has no significant effect on firms’ performance measured by ROE in Pooled-OLS, Fixed Effects and Random Effects models. These findings are consistent with Omowunmi (2012) and Martis (2013), but contrary to those of Abor (2005) and Khan (2012). Similarly, the regression results on aggregate data further revealed that short-term debt ratio (STDR) has no significant effect on firms’ financial performance measured by ROA in all the 3 models. These findings are in agreement with Al-Taani (2013), but contrary to those of Kester (1986), Friend and Lang (1988) and Wald (1999).

Furthermore, the regression results on aggregate data set further revealed that long-term debt ratio (LTDR) has no significant effect on firms’ financial performance measured by ROE in the Pooled-OLS, Fixed Effects and Random Effects models. The findings are in agreement with those of Omowunmi (2012) and Martis (2013), but contrary to those of Abor (2005) and Yoon and Jang (2005). The regression results also revealed that LTDR has no significant effect on firms’ financial performance surrogated by ROA in all the 3 models. This result is not consistent with those of Omowunmi (2012), Martis (2013) and Al-Taani (2013).

In addition, the regression results for the entire data set also revealed that total-debt ratio (TDR) has no significant effect on firms’ financial performance represented by ROE in Pooled-OLS, Fixed Effects and Random Effects models. The findings are contrary to those of Khan (2012), Leon (2013), Arowoshegbe and Emeni (2014), Chinaemerem and Anthony (2012), Onaolapo and Kajola (2010) and Akande (2013), but in agreement with those of Omowunmi (2012), Martis (2013), Leon (2013), Velnampy and Niresh (2012).

Similarly, when ROA was used as a measure of firms’ financial performance, TDR has no significant effect on firms’ financial performance in all the 3 models. These findings are contrary to those found by Wald (1999), Gill and Mathur (2011), Omowunmi (2012), Akande (2013), Onaolapo and Kajola (2010) and Mule and Mukras (2015), but in congruence with Al-Taani (2013).

Interestingly, despite the non-significance of 3 out of our 4 measures of financial leverage for the aggregate data when both ROE and ROA were used as a measure of firms’ financial performance, the regression results revealed that the overall effects of financial leverage variables (STDR, LTDR, TDR and TDER) on firms’ financial performance is significant at 1 per cent in all the 3 models (Pooled-OLS, Fixed Effects and Random Effects estimators) under ROE and Fixed Effects model under the ROA. This means that the models are statistically adequate and can be used to draw valid conclusions. The significant F-tests for both ROE and ROA is a testimony of joint significant of estimated co-efficient of short-term debt ratio, long-term debt ratio, total-debt ratio and total-debt equity ratio on firms’ financial performance.
We found from our results of the aggregate data that TDER is the most robust measure of financial leverage in this study. This follows the adequacy of TDER in all the 3 models at 1 per cent level when ROE was used to measure of firms’ financial performance and in the Fixed Effects model when ROA was used to proxy financial performance. We also found from our results of the aggregate data that TDER has a significant positive effect on firms’ financial performance as measured by ROE. This finding is consistent with the Trade-off theory which predicts a positive relationship between leverage and firms’ performance and contrary to Pecking Order Theory which expects a negative relationship between leverage and firms’ financial performance. However, we uncover evidence supporting pecking order hypothesis when ROA was used to measure firms’ financial performance in the aggregate data set. This was revealed by the negative relationship between TDER and ROA in the regression results in Table 12 that was corrected for heteroscedasticity under the Fixed Effects model.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the discussion of findings of this study, the following conclusions were drawn:

Non-financial firms’ quoted on the floor of the Nigerian Stock Exchange relied on short-term financing instruments as compared to long-term debt, and they prefer to finance their investment using equity rather than debt. We concluded that the financing behaviour of non-financial firms’ quoted on the NSE did not follow the Pecking Order Hypothesis during the period under investigation.

Total-debt equity ratio (TDER) increases firms’ financial performance as measured by ROE. An increase in the equity portion of the TDER will improve financial performance dramatically. There is bidirectional causality running from TDER to firms’ financial performance (ROE) and vice versa. TDER has a significant positive effect on firms’ financial performance and firms’ financial performance has a significant positive effect on leverage (TDER). We therefore, conclude that financial leverage measured by total debt-equity ratio is an important indicator of firms’ financial performance measured by return on equity and vise versa.

Similarly, an increase or decrease in short-term debt ratio (STDR), long-term debt ratio (LTDR) and total-debt ratio (TDR) in the firms’ capital structure will not have any significant effect on financial performance of non-financial quoted firms’ in the NSE. Therefore, short-term debt ratio, long-term debt ratio and total-debt ratio is not an important predictor of firms’ financial performance in the present study.

Financial leverage variables: STDR, LTDR, TDR and TDER are jointly responsible for the variation in the performance of non-financial firms’ quoted on the NSE. In other words, the leverage variables altogether explained the variation in firms’ financial performance.

Consequent upon the major conclusion of this study, the following recommendations were given for consideration by non-financial quoted firms’ in the Nigerian Stock Exchange and regulatory authorities:

1. Total-debt equity ratio (TDER) has a significant positive effect on firms’ financial performance measured by return on equity (ROE). Therefore, non-financial firms’ quoted on the floor of the Nigerian Stock Exchange should increase the equity portion of the debt-equity mix in their capital structure in order to improve firms’ financial performance.

2. Short-term debt ratio (STDR), long-term debt ratio (LTDR) and total-debt ratio (TDR) have no significant effect on firms’ performance. Therefore, there is need for non-financial firms’ listed on the NSE to avoid excessive use of debt in their capital
structure, as debt of any form has no significant effect on firms’ financial performance. In addition, excessive use of debts in the firms’ capital structure exposes the firms’ to the risk of financial distress and high probability of bankruptcy.

3. Since financial leverage variables jointly and significantly impact on firms’ financial performance. Non-financial quoted firms in the NSE should determine the appropriate debt-equity mix that will impact positively on their financial performance.

4. Long-term debts are required for capital projects and expansion purposes. But, the ratio in the present study is very low, meaning that non-financial firms’ quoted on the NSE do not employ much long-term debt in their capital structure. This may be partly due to poor participation and inefficiency in the Nigerian capital market and partly due to unfavourable terms/conditions imposed by lending institutions. The Nigerian Stock Exchange should therefore, as a matter of urgency relaxes any stringent policies/regulation that could hinder effective participation in the bond market. On the other hand, banks and other financial lending institutions should make loan application, processing and disbursements simple and attractive, so as to facilitate firms’ access to long-term debt. Banks must do these with the highest level of caution in order to avoid impaired assets or bad loans.
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WOMEN DIRECTORSHIP AND ITS IMPACT ON ACCOUNTING VOLUNTARY DISCLOSURE REPORTING IN THE LISTED COMMERCIAL BANKS IN NIGERIA

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ABSTRACT

This study examines the impact of women directorship on voluntary disclosure reporting of listed commercial Banks in Nigeria. The study utilized documentary data collected from annual reports and accounts of the sampled banks for the periods 2008 to 2014 and the stock exchange fact book. Data was first analyzed by means of descriptive statistics to provide summary statistics for the variables and subsequently, a regression technique was employed using SPSS (Version 20). The findings reveal that women directorship has positive but insignificant relationship with voluntary disclosure reporting. Based on the findings the study recommends that Shareholders in the Nigerian banking Industry should encourage the appointment of women in the board to a certain level, as it positively affects the level of voluntarily disclosed information of commercial banks; and also the relevant authorities i.e. CBN, NDIC and SEC should take into consideration the findings of this research work especially during the amendment of the rules and regulations governing financial reporting so that more information would be adequately and voluntarily disclosed by the banks.

Key Words: women, directorship, voluntary, disclosure, commercial, banks,

1.0 Introduction

The inadequate disclosures by firms due to ineffectiveness of corporate governance attributes like board characteristics among which women directorship is one of the determinants have been accepted as the major reason behind most of the corporate financial failures in the world. Examples of highly publicized financial reporting frauds are the cases of Enron, WorldCom, African Petroleum Plc, and more recently the case of Nigerian banks distress in 2006 and 2009 due to deregulation of the sector which eroded the confidence of users on the financial statement (Beasley 1996; Dechow; McMullen, 1996; Beasley, Carcello & Hermanson, 1999; 2001; Dabor & Adeyemi, 2009; and Tijjani & Dabor, 2010).

Voluntary disclosure which refers to free choices in the release of information on the part of managers to users of the annual reports is believed to be a remedy to the corporate failure problem and it comprises both mandatory and voluntary disclosure as noted by Chetkovich (1995) and Miller and Bahnson (1999). However, voluntary disclosure improves the quality of mandatory disclosure as it always considers the need of all users of accounting information apart from reducing the firm’s cost of capital, as well as, enhancing its market value. It is observed that women are considered to be more risk averse, less tolerance of
unethical behavior this in turn help them to be more effective in monitoring manager’s decision making. Therefore, studying Women Directorship with Voluntary Disclosure hereby referred to as WD and VD respectively, has become imperative for a company to improve information quality (Hongxia and Ainian, 2008). Also, it became a constituent of governance as it discourages managers from non-disclosure of relevant information in the annual report. The paper is also motivated by the fact that in practice corporate directors are directly involved in making decisions concerning which information is disclosed in the corporate annual reports.

This study specifically intends to extend previous studies on corporate governance (CG) mechanisms and Voluntary disclosure (Buzby, 1975; McKinnon and Dalimunthe, 1993; Frost and Pownall, 1994; and Meek, Roberts and Gray, 1995) in developed markets. And few from Asian region: (Hossain, Tan and Adams 1994; Ibrahim, Haron and Ariffin, 2000; Ho and Wong, 2001; Chau and Gray, 2002; Haniffa and Cooke, 2002; Eng and Mark, 2003; Mohd-nasir and Abdullah, 2004; and Hongxia li and Ainian Qi, 2008; Juhmani, 2013). From Africa: In Zimbabwe (Owusu-Ansah, 1998), Kenya (Barako, Hancock and Izan, 2006) and South Africa (Suwaidan and Thomson, 2003). Studies on the impact of women directorship and voluntary disclosure are quite scanty in accounting and finance literature in developing nations, especially in Nigeria. Ajunwa (2012) from Nigeria has conducted a study on board characteristics and financial performance of Nigerian quoted firms, among which board gender was included as independent variable. Using generalized least square regression (GLS) he found that gender diversity negatively link with firm performance. Hence, this suggests that, there are relatively few or even no empirical studies known which directly examined the impact of women directorship on voluntary disclosure in the Nigerian banking industry. It is this gap; therefore, that has prompted this study.

The reminder of this paper is organized as follows. Section 2 reviews prior literature and presents the study hypothesis. Section 3 presents methodology employed in the study. Section 4 presents the results and discussion of findings while Section 5 provides the conclusion on the effect of women directorship on voluntary disclosures in annual reports.

2.0 Related Literature and Hypothesis Development

2.1 Women directorship and Voluntary Disclosure

According to Perera (1994) Disclosure is an "...accounting activity involving both human and non-human resources or techniques as well as the interaction of the two". Gender diversity is one of the interesting human aspects that have been of interest in many studies as from last decades. Therefore, this study considers it to be one of the important aspects to take into account when dealing with disclosure management and thus considers women directorship to be another attribute that could be used to explain information disclosures in annual reports.

A vast amount of literatures has examined the relationship between gender diversity and performance (see e.g., Firoozi et’al (2016); Ujunwa (2012); Nalikka (2009); Rose (2007); Carter et al. (2003); Erhardt et al. (2003); Watson (2002); Chell and Baines (1998); Siciliano (1996). These studies have had mixed findings regarding this relationship. In the study of Carter et al. (2003), they examined the relationship between board diversity and firm value for Fortune 1000 firms and found that there is a significant positive relationship between the fraction of women or minorities on the board and the value of the firm. They argue that firms making a commitment to increase numbers of women on board also have more minorities on their boards and vice versa. Similarly, the studies by Erhardt et al. (2003) and Siciliano (1996) both found a positive relationship between gender diversity and firm performance when they Investigated the relationship between board of director diversity and firm financial
performance for large US companies and the relationship of board member diversity to organizational performance respectively.

Contrary to the above studies, the studies by Firoozi et al. (2016); Ujunwa (2012); Nalikka (2009); Rose (2007); Watson (2002); and Chell and Baines (1998) found no relationship between gender diversity and performance. Using data from 1131 Canadian firms and multivariate analysis, Firoozi et al. (2016) found no relationship between gender diversity and financial reporting quality. Moreover, Ujunwa (2012) found negative relationship between gender diversity and firm’s performance, using panel data from 122 quoted firms in Nigeria. Also, Nalikka (2009) conducted a study to find the impact of gender diversity on voluntary disclosures in annual reports the finding reveals non significant impact between the two variables.

In contrast, Watson (2002) in his findings reveal that after controlling for business age, industry and period of operation of business, there were no differences in the performance of male and female-controlled business. Interestingly however, before the control variables, evidence suggested outperformance of female controlled businesses. The study by Rose (2007) using a sample of listed Danish firms and that by Chell and Baines (1998) using a sample of micro businesses in business service in the UK also reveal no relationship between gender and firm performance.

It can be assumed that the voluntary disclosure levels are affected by gender diversity considering the findings below that gender diversity leads to improved firm performance (see, e.g., Erhardt et al. (2003); Siciliano, 1996). Conversely, some studies like Firoozi et al. (2016); Ujunwa (2012) found negative relationship between gender diversity and firm’s performance, It can further be assumed by this study that gender diversity of director’s plays insignificant role during both the disclosure and decision-making process as to which information to disclose in the reports by the firm directors. This is related to earlier findings of a negative relationship between gender diversity (in terms of female representation and the differences between men and women) and the effectiveness of corporate boards. Based on the above discussion, this study expects gender diversity to have no impact on voluntary disclosure. It is of interest to examine whether gender diversity affects the amount of information voluntarily disclosed in corporate annual reports. This study therefore hypothesizes as below:

Ho: There is a negative association between women directorship and the extent of voluntary disclosure, by Nigerian commercial banks’

3.0 Research Methodology

The research design specifically employed by this study is *ex post factor* design. Data was collected from the annual report and accounts of the banks that are quoted on the floor of the Nigeria Stock Exchange and the Fact Book. The design is believe to be adequate and appropriate for the measurement of the Impact of Woman Directorship on Voluntary Disclosure of listed banks in Nigeria.

The population covers all the commercial banks listed on the Nigerian stock exchange as at 31st December, 2014 which are sixteen (16) in numbers. Eight (8) banks were chosen as a sample (i.e. 50% of the entire population) based on the stability of the corporate identity of banks i.e. banks that did not have any change in their identities as a result of consolidation or mergers. This is done to ensure uniformity of the data relating to the period under study. The selected banks are as follows: Access Bank Plc; Diamond bank Plc; First Bank Plc; Guaranty Trust Bank Plc; Union Bank Plc; United Bank for Africa Plc; Wema Bank Plc and Zenith Bank Plc. Therefore, annual financial report constitutes the sources of data for the study. Hence, the source of data used by this study is secondary. Consistent with previous similar studies on disclosure as follows: Simon and Karsun (2001); Chau and Gray (2002); Mohd-
nasir and Abdallah (2004); Hoxia and Ainian (2008) and Al-shammari (2008) where annual reports and accounts were used.

This study has used the univariate regression techniques and descriptive statistics to test the strength of the relationship between the attributes of Women Directorship (Independent Variable) and Voluntary Disclosure (Dependent Variable) as it is expected to explain the variation in dependent variable due to variation in one independent variable. The regression equation is expressed as follows:

\[ VD = f (WBOD) \]

\[ VD = a + b_1 WBOD \]

Where:

VD = Voluntary Disclosure

WBOD = Women Board Members

b1 = Partial derivatives or gradient of the independent variables

a = Overall VD intercept (i.e. value of VD when the values of all other independent variables are zero).

The Women Directorship is measured by the proportion of women on the board to the overall board size. Using dummy variable a value of 1 is assigned when woman is found in the board while zero (0) is assign if otherwise. (Cooke, 1989, 1991; Ho & Wong, 2001; Chau & Gray, 2002; Haniffa & Cooke, 2002; and Ghazali & Weetman, 2006)

The voluntary disclosure checklist was prepared by the researcher to measure voluntary disclosure, based on the checklist developed by Meek et al. (1995) in relation to voluntary disclosures of U.K and continental European firms. The Meek et al (1995) instrument which was later used by Chau and Gray (2002) for Hong Kong and Singapore firms; also recently used by Mohd-nasir and Abdullah (2004) for Malaysian listed companies; Ghazali and Weetman (2006) for Malaysian firms and more recently Al-Shammari (2008) for Kuwait firms were validated based on the Nigerian situation and use.

Each disclosure item was given equal weight in the index, consistent with prior studies (Cooke, 1992; Wallace and Naser, 1995; Owusu-ansah, 2000; Owusu-ansah and Yeoh, 2005; Al-shammari, 2008).

4. Data Analysis and Interpretation

As previously stated, the study employs regression models with the purpose of testing the relationship between variables of the study. Descriptive statistics merely presents the statistical attributes of the variables in our model. Table 1 provides such statistics. All the variables were computed from the relevant part of annual reports and statements of accounts of the sampled companies.

<table>
<thead>
<tr>
<th>Table 1 Descriptive Statistics of variables:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimun</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>Predicted Value</td>
</tr>
<tr>
<td>Residual</td>
</tr>
<tr>
<td>Std. Predicted Value</td>
</tr>
<tr>
<td>Std. Residual</td>
</tr>
</tbody>
</table>

Source: Generated by the Researcher from the Annual Reports and Accounts of the sampled banks using (SPSS version 20)
a. Dependent Variable: VD

Table 1 reveals that the Voluntary Disclosure (VD) of the Nigerian commercial banks over the ten year period range from 70 to the maximum of 72 and has an average value of the dependent of 71% and the standard deviation is 0.00452 indicating lack of substantial variation.

The higher the standard deviation, the higher the corporate risks face by banks in relation to the variable.

**Table 2: Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.062*</td>
<td>.004</td>
<td>-.015</td>
<td>.07381</td>
<td>.004</td>
</tr>
</tbody>
</table>

Source: Generated by the Researcher from the Annual Reports and Accounts of the sampled banks using SPSS (Version 20)

From table 2: above, the R value of 6% indicates an insignificant linear relationship between WBOD and VD. This prediction by the regression model implies that any positive change that affects the women on the board of directors practice by commercial banks in Nigeria would also affect the extent of their voluntary disclosure and vice versa.

The coefficient of determinations “R-square” shows 0.04% indicating that the variable considered in the model accounts for about 0.04% change in the dependent variable that is VD, while the remaining of the change is as a result of other variables not addressed by this model.

**Table 3: Regression Result**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Correlations</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Zero-order</td>
<td>Partial</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.708</td>
<td>.016</td>
<td></td>
<td></td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.048</td>
<td>.106</td>
<td>.062</td>
<td>.454</td>
<td>.652</td>
<td>.062</td>
</tr>
</tbody>
</table>

Source: Generated by the Researcher from the Annual Reports and Accounts of the sampled banks using SPSS (Version 20)

In general, the overall probability is positively significant at 5%. Thus, the model equation can be written as: VD = .708 + .048β + ε

To further assess the validity of non-collinearity indication revealed by the correlation matrices, the study uses Tolerance Value (TV) and Variance Inflation Factor (VIF).

The VIF which is simply the reciprocal of TV range 1.000 to 1.000 as shown in the table above this indicates absence of collinearity. VIF shows collinearity when its value exceeds 10 (Tobachnick and Fidell, 1996 as cited by Sabari, 2012).
In appraising the model, based on the regression result in table 3, the results show that, as the relationship between VD and WBOD is positive and insignificant, this can be vindicated by the positive “t” value of .454 and it also been confirm by the positive coefficient of .048 which means that, an increase in WBOD by one more unit, increases the industry voluntary disclosure by .048. This implies that, WBOD has a positive relationship with VD. This result is consistent with the findings of Nalikka (2009), Erhardt et al. (2003) and Siciliano (1996), inconsistence with Firoozi et’al (2016) and Ujunwa (2012) who found negative relationships. Moreover, it is good to note that, an increase in the number of women in the board increases level of voluntary disclosure.

5. Conclusion and Recommendations

From the findings of this study, it can be deduced that WBOD increases the application of voluntary disclosure of the banks in the Nigerian banking industry with a very insignificant relationship. Thus, voluntary disclosure becomes necessary for the banks to make a credible disclosure and to attract investors.

Based on the conclusions of this study, it is recommended that the banks in the Nigerian banking industry should ensure more females are appointed in the board (since it has an effect on VD) so as to ensure the quality of their financial reporting and also the relevant authority i.e. CAC and SEC should take into consideration the findings of this research and include it when it comes to the amendment of the rules and regulations governing financial reporting so that; they can adequately disclose financial information voluntarily. Shareholders in the Nigerian banking Industry should encourage the appointment of women in the board to a certain level, since it has an impact though it’s insignificant.
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EFFECTS OF EMPLOYMENT NON-MONETARY COMPENSATION PACKAGE ON TEACHERS’ JOB PERFORMANCE: A STUDY OF NASSARAWA ZONE OF KSSSSMB, KANO STATE, NIGERIA

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Abstract

It is a fact that the art of Teaching does give psychological satisfaction which enjoin the teachers to remain on the job. With the emergent of globalization and increases of environmental and economic needs of having qualitative education among the teaming youth, pressure group calls for enhancement of teachers’ job performance. Effective teachers’ performance results to qualitative education of students that is manifested in their success at external examinations such as WAEC and NECO. It is observed that achieving effective teachers’ performance is a function of job compensation. While monetary reward has been the dominant need for teachers to enhance their job performance, it is always suffering from many setbacks due to other factors such as the large size of teachers’ population which their employers used as excuse for their inability to pay teachers handsomely. With the continued hash economic financial difficulties Nigeria is experiencing, non-monetary compensation package is an option for enhancing Teachers’ job performance. This paper aims at examining Effects of Employment Non-Monetary Compensation Package on Teachers’ Job Performance in Nassarawa Zone of KSSSSMB, Kano State, Nigeria. 388 respondents are administered with the items of questionnaires from the population of 13056 teachers in the Zone using convenient sampling technique. The constructs: Fringe Benefit, Work Condition and Recognition (Job Motivator) are measured against Teachers’ Job Performance. The three (3) hypotheses are tested using Multiple Regression Model in SPSS 16. The findings, recommendations and conclusion are drawn from the study.

Introduction

Purpose of the Paper

The aim of the study is to examine Effects of Employment Non-Monetary Compensation Package on Teachers’ Job Performance in Nassarawa Zone of KSSSSMB, Kano State, Nigeria which is specifically stated as follows:

✓ To evaluate the extent to which fringe benefits have significant influence on the teachers’ performance at Nassarawa Zonal Education Area.
To determine the extent to which teachers working conditions have significant influence on teachers’ performance at Nassarawa Zonal Education Area.

To assess the extent to which job motivator (recognition) have significant influence on teachers performance at Nassarawa Zonal Education Area.

However, as a logical guess, hypothesis in a study replaces the possibility in the occurrence of an event under investigation. It offers solution to the research questions and tries to establish a relationship or difference between the variables involve in the investigations (Institute of Chartered Accountant of Nigeria. It is a tentative proposition suggested as a solution to a problem or as an explanation of some phenomenon (Bello & Ayuba, 2015). The following hypotheses are hereby formulated for the study.

4. HO1: Fringe Benefits have no significant influence on teachers’ performance at Nassarawa Zonal Education Area.

5. HO2: Teachers working conditions have no significant influence on teachers’ performance at Nassarawa Zonal Education Area.

6. HO3: Job motivators have no significant influence on teachers’ performance at Nassarawa Zonal Education Area.

3.0 Literature Review and Conceptual Framework

4.0 Methodology of the Study

This research is purely quantitative research. It is designed for fact findings that describe the phenomena under study. It employed exploratory survey design as an avenue to achieve the research objectives which are in line with the research question raised. This enables ascertaining the veracity of the study’s hypotheses formulated. Three independent explanatory variables (Fringe Benefits, Work Condition and Recognition) are identified which are measured against the dependent variable: Teachers’ Job Performance. Primary source of data to be used is questionnaire which serves as the instrument of data collection. The questionnaire is to be subjected to validity test before employed in to full administration to the subjects. The data collected from the respondents will be subjected to reliability test. The population of study is 13053 teachers.

The sample size of the study is arrived at using the Yard’ Formular (1973)

Yard’s (1973) formula i.e

\[ n = \frac{N}{1 + N (e)^2} \]

Where; \( n \) = sample size; \( N \) = Finite Population; \( e \) = Level of significance = 5% or (0.05); 1= Constant

The research employs accidental sampling technique as the method of selecting 388 respondents (at 5% margin of error and 95% level of significant) from the population of the study under the criteria that only those teachers that voluntarily accept to fill the questionnaire are included.

Discussion on the Results/Findings

Conclusions

References
Dear Respondents,

We are academic researchers currently undergoing a study on the topic entitled “Effects of Employment Non-Monetary Compensation Package on Teachers’ Job Performance: a study of Nassarawa Zone of KSSSSMB (Kano State Senior Secondary School Management Board), Kano State, Nigeria” as an effort make to contribute to the knowledge. I wish to solicit for your cooperation to kindly fill this Questionnaire as accurate as possible. All responses given would be treated with confidentiality and would only be used, strictly for academic purposes.

Yours faithfully,

Habibu Ayuba, ACA,  
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ayuhab2@gmail.com/habibuayuba@yahoo.co.uk

&

Lawan Ado,  
08065077430  
lawanado010@gmail.com

QUESTIONNAIRE FOR TEACHING STAFF

PERSONAL DATA

Please tick (√) where appropriately the boxes below and fill in the spaces where applicable.

1. Sex:  
   a. Male  
   b. Female

2. Kindly do indicate the age group.  
   a. 18 – 25 Years  
   b. 26 – 35 Years  
   c. 36 – 45 Years  
   d. 46 – 55 Years  
   e. 55 Years and above.

3. Your marital status is:  
   a. Single  
   b. Married  
   c. Separated  
   d. Widowed  
   e. Divorced

4. Qualification of the Respondents  
   a. WAEC/Equivalent  
   b. OND/NCE/Equivalent  
   c. HND/B.Sc/B.A/B.Ed  
   d. MBA/MBF/ACA or Equivalent  
   e. M.Sc /Ph.D.  
   f. Others (Please Specify)…………………

5. Occupational status of the Respondents  
   a. Teaching  
   b. Principal/Management  
   c. Teacher on Long Training/in-service  
   d. Teacher as Administrator  
   e. Others (Please specify)………………………………………………

6. Monthly Income Level of the Respondents  
   a. Below N25,000 P/M  
   b. N25,001 – N50,000 P/M  
   c. N50,001 – N75,000 P/M  
   d. N75,001 – 100,000 P/M  
   e. N100,001 – And Above
**Instruction:** Below are statements that describe how you see or think about Non-Monetary Compensation Package you enjoy at KSSSSMB. Please, answer the questions by using scales to rank them 1 to 5 to indicate your level of agreement or disagreement with each statement as presented below.

**KEY:**  
1 = Strongly Disagree (SD)  
2 = Disagree (D)  
3 = Undecided (UD)  
4 = Agree (A)  
5 = Strongly agree (SA)

<table>
<thead>
<tr>
<th>S/N</th>
<th>SECTION 1 Fringe Benefits</th>
<th>SD</th>
<th>D</th>
<th>UD</th>
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<td>QUESTIONS</td>
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<tr>
<td>1.</td>
<td>You often recieve assistance from School authority when you are sick</td>
<td>1</td>
<td>2</td>
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<td>2.</td>
<td>You are entittled for a day off while you are sick</td>
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<td>3.</td>
<td>You are allowed to attend to your family problems as at when the problem arised</td>
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<td>4.</td>
<td>Your organisation gives free launch or tea break during school hours</td>
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<td>5.</td>
<td>You are given counselling on how to carry out your personal life</td>
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<th>S/N</th>
<th>SECTION 2. Condition of work</th>
<th>SD</th>
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<td>QUESTIONS</td>
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<tr>
<td>6.</td>
<td>Your classroom is teaching freindly due to the less congestion.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>7.</td>
<td>Teaching instructions are always available with facilities effective teaching</td>
<td></td>
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<tr>
<td>8.</td>
<td>You enjoy team support from your teaching colleagues which assist in effective teaching delivery.</td>
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<td>9.</td>
<td>You are free from the student’s attack and unnecessary violence from school.</td>
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<td>10.</td>
<td>You receive reasonable work load in your place of teaching.</td>
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<tr>
<th>S/N</th>
<th>SECTION 3. Recognition</th>
<th>SD</th>
<th>D</th>
<th>UD</th>
<th>A</th>
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<td>QUESTIONS</td>
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<tr>
<td>11.</td>
<td>You always receive appriciation letter for the job well done.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
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<td>12.</td>
<td>Your success lead to your promotion.</td>
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13. Students of your school show their appreciation to the job done through kind gesture.

14. You are well respected by your students.

15. You are well respected by the school authority.

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<tr>
<th>S/N</th>
<th>SECTION 4. Job performance</th>
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<tbody>
<tr>
<td>QUESTIONS</td>
<td>SD</td>
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<tr>
<td>1</td>
<td>2</td>
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16. Your students do perform excellently at their external examination.

17. Your student developed higher interest in your subject.

18. You always complete your syllabus as at when due.

19. You keep up to date records of your teaching records.

20. You record lowest absentism rate and rated high achiever in your school

Thank you so much for the valuable time you spent in answering this questionnaire. Please, feel free to contact me for improvement regarding to the questionnaire through my address.
EVALUATION OF THE EFFECT OF RELATIONSHIP MARKETING ON THE PERFORMANCE OF MTN AND GLOBAL COMMUNICATION PLC IN ABUJA, NIGERIA

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ABSTRACT
Marketing is the life wire of any organization. The competition in the telecommunication industry in present time in Nigeria has prone the present study to evaluate the effect of relationship marketing on the performance of MTN and Global communication Plc (Glo) in Abuja, Nigeria. The respondents for the study carried out in 2013 were 4 and 6 management staff of MTN and Glo respectively; 10 and 8 customer staff of MTN and Global com respectively; 893 and 880 customers of MTN and Global com respectively. The results from the administration of structured questionnaire and interview led to the findings that the customers of the two firms have significant level of awareness of the relationship marketing strategies used by the communication companies in the study area. There is no significant difference in the practice of relationship marketing by MTN (a multinational communication company) compared to Glo (an indigenous company) using Chi-square procedure (P < 0.05). However, more customers of GLO are relatively more satisfied with the services than those of MTN. The study therefore leads to the assertion that relationship marketing has a positive effect on customer loyalty to the telecommunication companies (P < 0.05). And so indicates that by placing more adequate attention to relationship marketing concept the telecommunication companies can effectively enhance their performance.

Keywords: Telecommunication, competition, customer loyalty, relationship marketing strategies, performance

1.0 INTRODUCTION
A growing business needs to constantly capture new customers; however, the organizational focus and priority should be on pleasing the existing customer base. Companies that fail to nurture and retain their customer base would ultimately fail. The impetus expended to get new clients is twice as much as that required to maintain existing customer base (Bell and Sara, 2004).

Relationship marketing (RM) refers to all marketing activities directed toward establishing, developing and maintaining successful relational exchanges (Hunt and Morgan, 1994). The benefits of relationship marketing have been considered to typically focus on either the organization or the customers; and set to rarely benefit both. However, RM emphasizes that the relationship between organization and their customers is a partnership (Shaker, 2009).

Relationship marketing (RM) is an appropriate marketing model developed by academics in the early 1980s, the model is based upon the idea that companies responding to their customers as individuals are likely to be rewarded by greater loyalty and superior financial performance (Oliver, 1980).
Relationship marketing approach is getting higher importance in the view of evaluating consumers’ loyalty more than market share. It is focused at establishing, keeping and improving relations with consumers and other target groups in order to gain profit and reach goals of all involved parties (Grönroos, 1990).

RM extends to inbound marketing efforts (a combination of search optimization and strategic content), public relation (PR), social media and application development. (Berry 1983). It also involves using technology to organize, synchronize business processes, (principally sales and marketing activities), and most importantly, automate those marketing and communication activities on concrete marketing sequences that could run on autopilot - also known as marketing sequences (Gordon, 1999).

Telecommunications facilities in Nigeria were first established in 1886 by the then colonial administration. The privatization of the communication sector brought the entry of some communication service providers into Nigerian market. These are MTN Nigeria, Airtel Limited, Etisalat Limited, Visafone Limited Starcom Limited and Globacom Limited which is a Nigerian multinational telecommunication company. The Nigerian telecommunication market has been reported to be the fastest growing in the world. The subscribers of these communication service providers are estimated as over ten million subscribers.

The intense competitiveness in the telecommunication industry in Nigeria can be seen daily from the varying facilities, incentives and the customer friendly services being put forward by the service providers. A pragmatic shift has occurred, that has seen marketing change its focus from transactional to relationship marketing, as companies have become aware that the cost of attracting new customers can be as much as ten times more expensive than keeping existing ones (Achumba, 2000a). It is therefore significant to research into the effect of RM on the performance of telecommunication companies in Nigeria.

Methodology

Research Hypothesis

The following hypotheses are set to guide the study and also facilitate the data collection.

H1: Relationship marketing practice is more in the multinational communication company than in the indigenous company.

H2: Relationship marketing has a positive effect on customer loyalty to the communication companies.

The descriptive and survey research designs used for the study yielded both quantitative and qualitative data so as to enhance the accuracy of the final results. The survey contained items on the studied variables on a Likert-type scale. The quantitative research qualifies the relationships between RM, organizational performance and customer loyalty. To quantify these relationships, descriptive approach was adopted using cross-sectional studies to assay the variables of interest in a sample of subjects. One main advantage of combining the two methodologies was that one compensated for the deficiencies of the other – hence the accuracy of the findings was enhanced.

Technique of Data Collection

Interviews and questionnaire are the major data collection tools used in the study.

Questionnaire: The survey of the organizations was carried out by the use of structured questionnaire for managers and staff of the organizations and to the customers. This was developed with the support of previous studies by various experts in the relevant subject areas. The questionnaire comprised both structured (closed) and unstructured (open ended) questions. The scale comprised excellent, very good, good, fair and poor. The personal interactions in the
administration of the questionnaire reduced the possibility of mis-interpretation of questions and gave high response rate by the customers.

**Interview:** It is believed that more clarified responses (data) about the customers’, staff’s and managers’ experiences can be obtained by using a combination of different methods, following from studies carried out by Arksey and Knight (1999); Brookfield (1987). The work used semi-structured interviews with open ended questions (Arksey and Knight, 1999; Riekert, 2000) for the sampled subjects: customers, managers and marketing staff of the organizations.

The instrument was pilot tested twice, once with the 5 marketing staff and then retested on 40 respondents consisting of 20 customers each from MTN and Global Communication Plc in Abuja. The instruments were validated through the pilot studies by using experts and a sample of respondents for content validity (Taha, 2006).

The study carried out in 2013 was conducted in Abuja, Nigeria, the population considered to be relevant for unraveling the research questions are: the managers (N = 10) from about 20 managers, marketing staff of MTN Plc and Global Communication Plc (N = 18) from about 80 staff and customers of the organizations in the six Area Councils of the Federal Capital Territory (N = 1800) from about 400,000 customers.

For the conduct of interview with the customers of the organization, simple random selection of five interviewees (for each communication company) from each of the stratum of the Area Councils was considered. The total population figure was estimated at 180 (N = 180).

**Methods of Data Analysis**

Data analysis was carried out by using Statistical Programme for Social Science (SPSS). The Chi-square procedure was used to test the hypotheses formulated because the data measured were in non-quantitative scale. The statistical significance between the level of RM in the multinational and the indigenous telecommunication company, and that between the level of customer satisfaction and RM by the companies was investigated at the predetermined alpha level of significance of P < 0.05, i.e. 95% confidence interval.

**Result and Discussion**

The duration for long term plan for RM initiatives in the two organizations is presented in fig 1, 50% response (from management) indicated 8 year and 6 year plan for MTN, while two respondents from Glo stated 10, 8 and 6 year plans respectively. The mean (± mean deviation) year of clear plan for relationship marketing initiatives in MTN is 7 ± 1.0 year and 8 ± 1.33 year plan for Global com.

The study showed that 80% of the respondents from MTN rate their department’s performance as excellent in terms of trust built by their customers while 75% response rated the trust built on Global com by its customers as excellent.
From the study, 68% of the respondents have been using MTN network for over six years, 21% for about four to six years and only about 11% for a period of two to four years. On the other hand, 55% of the Glo users started using the network for over six years, 27% for about four to six years and only about 18% of the respondents have been using the network for less than two years. This implies that the sampled customers have related with the telecommunication companies for an average of 4 years and would be suitable to give opinions that would help in giving relevant information for the study.

The findings of the customers’ rating of the two organizations in terms of customer relationship indicates that 58% of the respondents rated MTN as fair, 26% as good and 16% rated it as poor in terms of their customer relationship. Glo had an appreciable level of customer relationship, with 9% of the respondents rating it as excellent, 36% as very good, 27% as good and only 9% considered it as poor in terms of customer relationship.

Table 1: Chi-square test on relationship marketing practice by multinational communication company (MTN) and the indigenous company (GLO)

<table>
<thead>
<tr>
<th>Relationship marketing practice</th>
<th>MTN</th>
<th>GLO</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication frequency with customer</td>
<td>62</td>
<td>29</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>73.43</td>
<td>27.31</td>
<td></td>
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<tr>
<td>Relationship satisfaction</td>
<td>38</td>
<td>19</td>
<td>57</td>
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<tr>
<td></td>
<td>37.11</td>
<td>23.14</td>
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Effectiveness of communication system | 92 | 29 | 121  
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<tbody>
<tr>
<td></td>
<td>84.31</td>
<td>26.92</td>
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Fulfillment of contractual obligations | 25 | 19 | 44  
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<th></th>
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<tr>
<td></td>
<td>20.13</td>
<td>17.11</td>
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Believing that relationships are assets | 21 | 15 | 36  
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<tbody>
<tr>
<td></td>
<td>14.31</td>
<td>11.31</td>
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Promotional strategies | 60 | 85 | 145  
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<tr>
<td></td>
<td>55.10</td>
<td>83.97</td>
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Reduction in tariff/free calls | 411 | 61 | 472  
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<tbody>
<tr>
<td></td>
<td>401.92</td>
<td>60.71</td>
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Total | 686.31 | 250.47 | 966  
|------|-------|-------|-----|  

Chi-square=97.397, df = 4, P = 0.069

At the predetermined alpha level of significance of P < 0.05, the degrees of freedom, df = 4. The calculated p-value (significant level) of 0.069 is greater than 0.05 and so the alternative hypothesis $H_1$ is rejected.

The chi square result computed in Table 1 indicated the chi-square value to be 97.397 and a calculated p-value (significant level) of 0.069, the calculated p-value is higher than the predetermined alpha level of significance of P < 0.05 at the degrees of freedom, df = 4. As a result the formulated hypothesis that relationship marketing practice is highly carried out in the multinational communication (MTN) than in the indigenous company (Global com Plc) is rejected.

The responses from the marketing staff on long term plan for relationship marketing by the organizations further buttresses the assertion. Table 1 indicates that 60% of the respondents from MTN gave two years, 30% one year plan for relationship marketing initiatives, while 10% gave no response. On the other hand, 12.5% of the respondents from Glo gave 3 years and above, 62.5% two years and 25% one year plan for the marketing department.

**Table 2: Chi-square test on effect of relationship marketing on customer loyalty to the communication companies MTN and GLO**

<table>
<thead>
<tr>
<th>Positive effect of relationship marketing</th>
<th>MTN</th>
<th>GLO</th>
<th>Total</th>
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<tbody>
<tr>
<td>Poor</td>
<td>94</td>
<td>160</td>
<td>254</td>
</tr>
<tr>
<td></td>
<td>92.09</td>
<td>149.94</td>
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<tr>
<td>Fair</td>
<td>141</td>
<td>80</td>
<td>221</td>
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<td></td>
<td>134.56</td>
<td>76.41</td>
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<tr>
<td>Good</td>
<td>517</td>
<td>320</td>
<td>837</td>
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In the test, the observed chi-square is 54.459 while the probability level of significance calculated is 0.003 that is (P < 0.05). This means that the hypothesis that relationship marketing practices has a positive effect on customer loyalty to the communication companies cannot be rejected.

The effect of the relationship marketing of the firms on the firms’ performances was tested, the result revealed a positive impact. Though some of the customers complained of high tariff especially by the multinational firm but this did not seem to have reduced their patronage. Most customers of the indigenous firm were generally satisfied with the firm. This did not however exclude the divergent opinion on some of the limitations complained by the customers in the usage of the services. The finding here is in conformity with work of Christopher et al. (2002), where it was opined that the performance of an organization is on the premise that, the real purpose of business is to create and sustain mutually beneficial relationships, especially with selected customers. In support of this finding, Thurau et al. (2002) posited that all relationship marketing activities are ultimately evaluated on the basis of company’s overall profitability as a key RM outcomes: customer loyalty and positive customer word-of-mouth communication. This finding is supported by Shaker (2009), asserting that relationship marketing emphasizes relationships on partnership basis, where the customers consider the services as satisfactory and become more loyal to the provider.

**CONCLUSION**

From the findings of the study on the evaluation of the effect of relationship marketing on the performance of MTN and Global Communication PLC in Abuja, Nigeria, it could be concluded that:

- The customers of the communication firms (MTN and GLO) in Abuja are aware of relationship marketing practice by the firms.

- In addition, there is no statistical difference in the extent of practicing relationship marketing by the multinational telecommunication company (MTN) compared to the indigenous (Global com Plc).

- Though, MTN was not considered to be very effective in her communication system yet it was able to retain and attract customers because of her relationship marketing strategies.

- The study therefore leads to the assertion that relationship marketing has a positive effect on customer loyalty to the two telecommunication companies.
REFERENCES

REDEFINING SUSTAINABLE HOUSING DELIVERY IN NIGERIA

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snoluigbo@abu.edu.ng

ABSTRACT

Sustainable design is context specific, and housing is perhaps the most context-specific of all building typologies with regards to sustainable design. This is because it is an interaction between the global concern of development within the carrying capacity of supporting ecosystems, and the more complex socio-cultural and socio-economic realities which are specific to each society. While much global attention is being given to the environmental dimension of sustainability, concerns such as cost/affordability, cultural diversity, and technological capabilities pose some of the greatest challenges to sustainable housing delivery in countries such as Nigeria. This paper looks at sustainable housing with reference to local concerns and challenges in Nigeria. This involved approaching sustainable housing as a process of delivering a sustainable product (housing), and also based on the traditional pillars of sustainability – environment, culture and economy. The paper concludes that sustainable housing delivery in Nigeria should be looked at holistically, with more emphasis given to the process for sustainable housing delivery which impacts positively on the overall sustainable development of Nigeria. There is therefore a need to examine Nigeria’s housing programmes and initiatives to ensure that a large share of their benefits accrue to Nigeria and not foreign entities.

Keywords: Culture, economy, environment, housing, low-income, sustainability.

INTRODUCTION

Sustainable housing is context specific and cannot be based on borrowed ideas or strategies. This is because the environmental, cultural, and economic circumstances that surround the evolution of housing varies from one location to another. Consequently, sustainable housing delivery is an interaction between the global concern of development within the carrying capacity of supporting ecosystems, and the more complex socio-cultural and socio-economic realities which are specific to each society. The delivery of sustainable housing remains a great challenge globally, however, this challenge is more severe in low-income developing countries, such as Nigeria. The definition and search for solutions to the challenge of sustainable housing delivery in developing countries such as Nigeria appears not to be totally in context with the overall goal of sustainable development. This was attributed to the fact that developed countries had been at the forefront of research in sustainable construction, resulting in approaches which were often not appropriate for low-income developing countries (Hamm & Muttagi, 1998; Lorch, 2005), resulting in conflict and competition among the various dimensions of sustainability (Islam, 1996). In line with this Guy (2005) advocated the adoption of new approaches for the vastly different contexts within developing countries such as Nigeria.

According to Federal Ministry of Lands, Housing and Urban Development (FMLHUD, 2012), Nigeria’s housing deficit is estimated at about 17 million units. This required an investment of about $600 billion, based on an average house price of a N5
million. This enormous amount required to offset Nigeria’s housing deficit is approximately equal to the value of all the oil Nigeria has produced since independence in 1960 (Ashkin, 2013). Olotuah and Bobadoye (2009) noted that Nigeria’s housing sector is faced with both contextual and organizational challenges which are manifest in low productivity and provision of poor quality and expensive housing. Jiboye (2011) submitted that to achieve sustainable development, housing policy should be in agreement with the existing national and socio-cultural realities of Nigeria. This should take cognisance of both local priorities and global concerns. It is in this light that this paper examines global and local issues in sustainable housing in order to place the discourse on sustainable housing in context with the Nigerian situation.

SUSTAINABLE HOUSING IN CONTEXT

Du Plessis, Adebayo, Ebohon, Irurah, Rwelamila, Hassan, Giyamah (2002) noted that sustainable development was not merely a development that can be sustained, but connotes the kind of development needed in order to achieve the state of sustainibility. Gibberd (2003) highlighted two issues which are necessary to approaching sustainability. The first is the identification of the entity that needed sustaining, while the second is the determination of what its requisite state should be. For low-income developing countries such as Nigeria, with high housing deficits and huge economic challenges, sustainable housing should be pursued within the general context of sustainable development of their countries in order to promote access to housing while stimulating economic development. Ebsen and Ramboll (2000) noted that the popular approach to sustainable housing was to integrate energy and environmental mechanisms in housing programs and projects. However, in order to achieve holistically sustainable housing delivery, focus should not be placed entirely the extreme bio-centric position which focuses on preservation of ecology with little regard for economic concerns nor the classical economist view which regards the economy as the relevant system and relegates nature to the role of provider of natural resources. Due to this diversity of concerns, sustainable housing can be approached from many directions. The first is to look at sustainable housing as a process of continually delivering a sustainable product (housing). The second looks at housing through the traditional pillars of environment, culture, and economy. Also, United Nations Economic Commission for Europe Committee on Housing and Land Management (UNECECHLM, 2014) listed four principles and related rationales form the basis of sustainable housing as: Environmental protection, economic effectiveness, social inclusion and participation, and cultural adequacy.

Sustainable Process of Housing Delivery

Central to the elimination of the housing deficit in Nigeria is the entrenchment of a continuous process of affordable housing production. Olotuah and Bobadoye (2009: 59) described sustainable housing provision as “the gradual, continual and replicable process of meeting the housing needs of the populace…”. In order to achieve this goal, real concern is the search for, and the encouragement of methods and materials to achieve safe and durable houses that people can go on using with the skills and resources locally available to them (Norton, 1999). Kim (1998) categorized the life cycle of a building into three phases. These are the pre-building, building, and post-building phases. The pre-building phase includes the design stage, and decisions taken at this phase is critical since it largely determines what becomes of the other phases (building and post-building phases). For the process of housing delivery to be sustainable, the design, construction, and maintenance must be continually achievable with local materials, manpower, and technology, right from the design to the demolition.
Sustainable Product (Housing)

A sustainable product is a product which will have little impact on the environment throughout its life cycle (Ljungberg 2007); a product that can be maintained in a specific state for an indefinite period of time (Heijungs, Huppes & Guinee, 2010); and, a product that is easy to build, consumes less resources in production, transport and erection (Dammann & Elle, 2006). Life Cycle Design (LCD) provides a framework for the examination of sustainable housing delivery. The conventional model of the building life cycle is a linear process consisting of four major phases: design; construction; operation and maintenance; and demolition. This can also be categorised into the pre-building, building, and post-building phases (Kim, 1998). Decisions taken at the pre-building phase is critical since it largely determines what becomes of the other phases (building and post-building). It is therefore necessary that the production of sustainable housing should harness the benefits of LCD from the inception. A similar tool is the Life Cycle Assessment (LCA) which can be used in the measurement of sustainability of a product, and this entails the compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product throughout its life cycle (Ljungberg, 2007).

The pillar based approach has long been the conventional approach to sustainability. This approach views sustainability as a tripod of three competing interests; those of environmental protection, social and cultural concerns, and economic considerations. It proposes that the search for sustainability lies in the balancing of these interests (Del Matto, 2007). The product of a sustainable housing process should be one that satisfies the three pillars of sustainability – environment, culture, and economy.

CHALLENGES OF SUSTAINABLE HOUSING IN NIGERIA

Building material sourcing and application

Building materials, from their production through their transport, installation and use to disposal, have significant, yet invisible, impacts on human health and the built environment. (Pierre & Alex, 2013). Despite this, the construction industry in Nigeria imports about 70% of its raw materials (Qalitheia, 2010), as against local production. With regards to local sourcing of building materials, the damages caused by material harvesting are evident in burrow pits, rock blasting sites, and, depletion of forests. The rapid deforestation, resulting from unsustainable uses of forest resources is one of the major sources of land degradation in Nigeria (Federal Government of Nigeria, FGN, 2012).

The use of building material on a site saves production cost, time, energy, environmental pollution and transportation cost. According to Kim (1998) the best way of material preservation is through the usage of resources already existing in the form of building (reuse). Renewable materials should be encouraged in construction of houses. Also the use of natural materials such as stone, timber, adobe, and brick made with earth, and others, which require minimal processing before use is encouraged.

It has become common for housing developers to mobilise their bulldozers to sites and demolish all forms of plants with a supposed aim of providing befitting housing estates. While this may not constitute a major concern in temperate regions, it is one of the contributors to urban heat island effect in many tropical climates such as Nigeria, resulting in heat discomfort. The resultant estate ends up with asphalt roads and concrete interlocking tiles and kerbs, to the amusement of many developers and occupants alike. As these urban surfaces are warmed by the sun, they heat both the interiors of buildings and the outside air (United States Environmental Protection Agency, 2014). A good example of this can be seen
in Abuja, the federal capital city of Nigeria. The negative consequences of this appear not to have been fully realised.

**Energy efficiency and renewable energy**

Rajapaksha and Hyde (2005) highlighted the two dimensions of operational energy minimization in buildings. These are; the reduction of energy demand, and, the supply of energy through renewable means. Reduction of energy demand lies in a return to the basic passive design strategies that rely on the natural characteristics of their locations, thereby downsizing mechanical systems. In contrast to this (Oluigbo, 2012) observed that appropriate passive design requirements with regards to building form and orientation, and spacing and arrangement of buildings on site are not given adequate consideration in housing design in Nigeria. A common characteristic of housing neighbourhoods in Nigeria which diminishes the achievements of passive cooling and ventilation is the construction of solid or impermeable fence walls around buildings. The result of this is the creation of ‘wind shadow effect’ and poor ventilation (Oluigbo, 2004).

With regards to energy supply, the most common renewable energy system used in houses in Nigeria is the Photo Voltaic Cell (PVC). This presents a number of conflicts to the context of environmental sustainability. The first conflict lies in the fact that the PVCs are imported (transported) over long distances thereby contributing to greenhouse gas emissions (Pierre & Alex, 2013). The second conflict is presented at the demolition stage since the capacity to recycle PVCs and its associated accessories is not in existent in Nigeria. In this regard, environmental sustainability appears to be in conflict with itself. This suggests that PVCs cannot be considered truly environmentally sustainable unless they are locally produced. The alternative lies in exploiting other renewable energy systems such as biomass.

**Local Culture and Cultural Adequacy**

The relationship between culture and housing cannot be overemphasized. Unlike office buildings, the housing environment provides individuals with cultural foundation. It may be easier to borrow the design of a factory, school building, or other institutional building typologies from locations with similar climates, without much conflict. This is not acceptable for housing, because housing is close to the users’ heart. It is directly connected to one’s lifestyle, family, and societal norms. Ademiluyi (2010) described a house as the physical framework whereby human’s social, economic, and cultural resources are delivered. Rikko and Gwatau (2011) submitted that a house is not about its size, shape, appearance, location or construction material, but its consistence with the day to day activities of the inhabitants. Cultural sustainability requires the maintenance of cultural diversity, values and practices currently existing in a region and building individual citizenship and complete social integration within a culture (Cunha & Cunha, 2005). The built environment is at the very heart of the identity of a community. It reflects the lifestyle, social organisation, artistic practices, and the architectural adaptation to cultural and religious factors (World Tourism Organisation (WTO, 2005). It is a representation of a society’s values and aspirations. Architecture, which is part of the built environment, is created for a number of reasons which include: communication of information; establishment of identity; and encoding of value systems (Rapoport, 2005).

**Imported architecture, cultural transformation and conflict of local identity**

While a lot of emphasis has been laid on the sustenance of the natural environment, rich cultural practices have been left to erode due to the design of houses based entirely on foreign or ‘global’ cultures. Different cultures organize their spaces differently, this is
because the organization of the spaces are influenced by the culture of the people, based on their values, norms and how they perceive and tackle their unique environmental challenges (Oluwagbemiga & Modi, 2014). The question of cultural identity and the built-environment has been discussed in a number of studies. Correa (1983) noted that identity was a process, and not a found object. Song (2005) noted that it is not a fixed and unchanged essence that transcends time and space, or a true and authentic origin to which we can ultimately return. This is due to the fact that it undergoes constant transformation. Hall’s (1996) submission described cultural identity as a matter of ‘becoming’ as well as of ‘being’, and as belonging to the future as much as to the past. The submission further identified two major ways of thinking about cultural identity: The first defined it in terms of one shared culture reflecting heritage and codes shared in common. This views identity as stable over time since as an inheritance it has been selected and reinforced by many generations. The second thinks of cultural identity as framed by two axes or vectors, simultaneously operative: the vector of similarity and continuity, and the vector of difference and rupture (Hall, 1996).

In the past, traditional houses across Nigeria were known to have reflected the socio-cultural circumstances of the localities from which they evolved. However, this has transformed over the years due to a number of factors. Osasona (2012) noted that these transformations were largely involuntary, since most had no choice but to surrender their traditional ways to the compelling circumstances. These circumstances include British colonization, the introduction of Islam into Northern Nigeria, and the return of the former slaves from the Americas (especially Brazil) (Prucnal-Ogunsote, 2001; Vander Smit, 2007; Rikko & Gwatau, 2011; Osasona, 2012). Osasona (2012) highlighted an array of historical factors that influenced the form of housing in Nigerian cultures. This erosion of indigenous house-form was further worsened with the advent of globalisation resulting in smaller cultures being gradually dissolved and indigenous architecture moving towards extinction (Kenneth, Andrew, Aydan & Gerishwar, 1996; Adeyemi, 2008; Odinye & Odinye, 2012), to the extent that Western culture is now regarded as frontline civilisation while African culture has been termed primitive, archaic and regretfully unacceptable in public domain (Arowolo, 2010). The result of this is the continual importation of architectural character and high demand for western building components and ideas. This has left most of the contemporary buildings in Nigeria today with little or no connection with local heritage. This as Falola (2003) puts it leaves the future generation without knowledge of their roots. With all this, it could be said that there are multiple dimensions to the question of cultural sustainability in housing design in Nigeria, since these historical influences cannot be reversed. This must be addressed especially in public housing schemes or agency provided housing.

While this could be easily addressed in design for individual houses, it remains a great challenge in mass housing due to Nigeria’s cultural diversity. Some of the consequences of this is evident in adjustments in many public housing schemes and outright abandonments in some cases such as the popular Shagari low cost houses. Adoption of foreign sustainable design concepts with spatial organisations and expressions which do not reflect our cultural heritage negates the values of cultural sustainability. Traditional architecture as source

Indigenous or traditional architecture has always been looked up to as a source of inspiration for culturally, environmentally, and economically sustainable housing. This is because traditional buildings are seen as source of genuine cultural identity which remained unchanged even when cultures changed rapidly (Mahgoub, 2007). This phenomenon was described as ‘architectures cultural omnipresence’ (Baudrillard & Nouvel 2003). This argument may sometimes be misconstrued to mean that architecture should be static or revert to historical or primitive styles. Consideration for culture in housing should not be equated with ‘museumification’. Norton (1999) noted that some aspects of traditional architecture of many localities may have become inefficient or unworkable, or in general, unsustainable as
building methods that worked well in the past in its given context may now be difficult to apply. There are significant changes in expectations and life styles, and sources and means of harvesting building materials and acquiring labour are no longer the same. For instance, many have erroneously presumed that the use of mud for construction can be taken as a reflection of indigenous cultures in parts of Nigeria. However, it is important to recount that many past civilisations passed through a phase of mud construction technology. Mud was referred to as the universal building material since it was universally available and easily harvested through the crudest of tools and technology. This does not dispute the place of indigenous or traditional architecture as a guide for culturally sustainable housing design.

Cultural identity can be communicated through architectural expression by the ordering of visual impression using elements that are in consonance with the values of the people it represents (Mahgoub, 2007). These elements may be reinterpreted through contemporary lenses in order to achieve a distinctive architectural identity that relates contemporary architecture to traditional architecture of a society (WTO, 2005).

Economic Effectiveness

The economic aspect of sustainability focuses on the viability of enterprises and assurance of viable, long-term economic operations and providing socio-economic benefits to all stakeholders (South Australian Tourism Commission (SATC), 2007). UNECECHLM (2014) called for access to housing to be pursued in the context of sustainable economic development. Bread for the world (1993) defined sustainability as the capacity of development projects to endure organizationally and financially. Economic sustainability occurs when development, which moves towards socio-cultural and environmental sustainability, is financially feasible (Gilbert et al., 1996, as cited in CAA, 2006).

Nigeria is listed among Low Income Developing Country (LIDC’s), with a per capita Gross National Income (GNI) of $1,260 (International Monetary Fund (IMF), 2014). This demands that any sustainable housing development should contribute to the overall goal of economic development. This is of great importance since construction industry in general plays an important role in the socio-economic development of any nation, and the housing sector has a tremendous multiplier effect on the broader economy (Ofori, 2007; Giang & Pheng, 2011; Okonjo-Iweala; 2014). Okonjo-Iweala (2014) highlighted the job creation potential of the housing sector, noting that each new housing unit generates 1.5 direct and 8 indirect jobs in India, and 5.62 direct jobs and 2.5 indirect jobs in South Africa. Also, while the housing sector contributes 18% of GDP in the USA, the housing and construction sector still accounts for only 3.1% of Nigeria’s GDP (Okonjo-Iweala, 2014). Nigeria relies largely on the sale of crude oil, and is seeking diversification of its economy, with a substantial part of its populace living in poverty. Holistically sustainable housing should aim at contributing maximally to local economy. This requires that effort be made at ensuring that the benefits of the entire process is as much as possible accrued to the local economy. The objectives of Nigeria’s National Housing and Urban Development Policy is to ensure sustainable housing, for all Nigerians, with emphasis on social and low income housing, and the exploitation of housing delivery for job creation (FGN, 2012).

Cheaper houses

It has always been asserted that sustainable design requires higher initial cost. If this assertion is true, then it is of no use to discuss sustainable housing in low-income developing countries. This position is perhaps due to the fact that sustainable housing has always been looked at from the techno-centric perspective, and based on the standards of the developed countries.
The objectives of Nigeria’s National Housing and Urban Development Policy is to ensure sustainable housing, for all Nigerians, with emphasis on social and low income housing (FGN, 2012). However, Ayedun and Oluwatobi (2011) noted that only 10 per cent of Nigerians can afford to own a house, either by purchase or personal construction, as compared to the 72 per cent in the United States, 78 per cent in the United Kingdom, 60 per cent in China, 54 per cent in Korea and 92 per cent in Singapore. This is against the fact that the right to housing embedded in the universal declaration of human rights and major international human rights treaties.

While it is recognised that Nigeria has a high housing deficit, Abuja, Nigeria’s federal Capital city, is spotted by many unoccupied houses in estates such as Gwarimpa. This is attributed to the fact that many of these houses are not affordable to the large number of residents in the city. Gilkinson and Sexton (2007) emphasized the importance of affordability as a key requirement of sustainable housing. Sustainable mass housing should reflect the economic realities in Nigeria through low construction, operation and maintenance cost.

Ashkin (2013) recommended the exploration of refined indigenous building materials and innovative building technologies for the delivery of more affordable housing in Nigeria. One of the currently most viable refined materials is the use of Compressed Earth Bricks (CEB). This also encourages dry construction. Also, self-help and community participation, which is an integral part of indigenous housing delivery process, could be encouraged (Adebayo & Adebayo, 2000). This will be viable in rural areas where many of the residents are self-employed, and may avail themselves for such processes.

Local personnel

Gallopin (2003) noted that achieving sustainable design does not lie in extraordinary solutions, but the application of simple but rational solutions. This submission is very important in sustainable housing development, since housing is a basic need that is still elusive to the majority of people in developing countries. While many Nigerians are unemployed, it will be ironical to appropriate a basic necessity such as housing delivery to foreign design professionals, contractors, and technicians, at the detriment of the local personnel. Housing delivery programs and strategies should be developed around local capacity and serve as a means of job creation thereby stimulating local economies. Therefore, sustainable housing in low-income developing countries should contribute to the empowerment of the poor by involving them in construction (Choguill, 2007). Oladapo and Oni (2012) identified over dependence on foreign personnel as one of the challenges to the development of Nigeria’s construction industry. Similarly, studies by Mbamali and Okotie (2012) showed that importation of professional services, dominance by foreign companies, and fewer opportunities for local contractors’ development ranked first, third and fifth among the threats of globalization to the building industry in Nigeria.

If architects and other building professionals from other parts of the world produce designs for housing projects in Nigeria and import personnel for the construction of same, what then will be the contribution of such projects to providing the much needed employment to the local populace? This is even more worrisome when much of the returns are repatriated to foreign countries, at the detriment of the local economy.

Locally-produced versus imported building materials and components

One of the key challenge to the provision of affordable housing in Nigeria lies in the cost of building materials. This is because building materials constitute about 70 percent of total cost of buildings (Oruwari, Jev & Owei, 2002). Unfortunately, many low-income developing countries such as Nigeria rely heavily on imported building materials at the
expense of local production and industrial development. According to Adogbo and Kolo (2009), there is an increasing demand for imported products in Nigeria which has also led to a decline in quality of its indigenous materials. Qalitheia (2010) reported that the construction industry in Nigeria imports about 70% of its raw materials, while studies by Ugochukwu, Ogbuagu, and Okechukwu (2014) revealed that 37% of building materials and components in Nigeria’s markets were locally produced or sourced, 23% were imported, while 40% had both local and foreign alternatives (Table 1). Also, National Bureau of Statistics (NBS, 2012) noted that importation of building materials in Nigeria increased from N130 million in 1960 to over N60 billion in 2009. This is a challenge to sustainable housing delivery and the overall sustainable economic development of Nigeria. It makes sense therefore to say that no matter how cheap an imported material is; it cannot be fully sustainable for housing delivery in a low-income developing country since it impedes the economic development of such countries. Also, one of the characteristics of sustainable building materials include being locally produced and sourced (Pierre & Alex, 2013). This reduces transport costs. Contrary to this, it is not uncommon to see many supposedly sustainable housing projects in Nigeria constructed of materials which were largely imported. These materials were adjudged sustainable based on global context with no recourse to local context. The promotion of building materials such as expanded polystyrene, and renewable energy fittings such as solar panels are laudable in the global context. However, the extent to which these contribute to economic sustainable remains questionable.

Table 1: Local and imported building materials and components in Nigerian markets (Source: Ugochukwu et al., 2014).

<table>
<thead>
<tr>
<th>Material</th>
<th>Source</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stones (Laterite, hardcore, granite/gravel)</td>
<td>Local</td>
<td>Local</td>
</tr>
<tr>
<td>Sand (sharp sand, plaster sand etc)</td>
<td>Local</td>
<td>Local</td>
</tr>
<tr>
<td>Sandcrete blocks</td>
<td>Local</td>
<td>Local</td>
</tr>
<tr>
<td>Reinforcement (High tensile)</td>
<td>Local</td>
<td>Imported U.K, Turkey, China &amp; India</td>
</tr>
<tr>
<td>Mild steel reinforcing bars</td>
<td>Local</td>
<td>Imported U.K, Turkey, China &amp; India</td>
</tr>
<tr>
<td>Steel wire mesh fabric</td>
<td>Local</td>
<td>Imported Turkey, China &amp; Malaysia</td>
</tr>
<tr>
<td>Binding wire</td>
<td>Local</td>
<td>Imported U.K, China</td>
</tr>
<tr>
<td>Polyethene sheet</td>
<td>Local</td>
<td>Imported China, India</td>
</tr>
<tr>
<td>Burnt bricks (floor bricks, roof bricks etc)</td>
<td>Local</td>
<td>Imported India, Indonesia, China, Pakistan &amp; Malaysia</td>
</tr>
<tr>
<td>Aluminum roofing sheet</td>
<td>Imported</td>
<td>USA, India, Malaysia &amp; China</td>
</tr>
<tr>
<td>Corrugated iron roofing sheet</td>
<td>Local</td>
<td>China</td>
</tr>
<tr>
<td>Slates, clay tiles and concrete roofing sheet</td>
<td>Local</td>
<td>Imported China (mainland)</td>
</tr>
<tr>
<td>Asbestos ceiling sheet</td>
<td>Local</td>
<td>Local</td>
</tr>
<tr>
<td>Felting material</td>
<td>Local</td>
<td>Local</td>
</tr>
<tr>
<td>Wooden doors (flush, panel floors etc)</td>
<td>Local</td>
<td>China, Italy, Germany</td>
</tr>
<tr>
<td>Metal doors (Iron, bullet proof etc)</td>
<td>Local</td>
<td>Imported India &amp; China, Italy</td>
</tr>
</tbody>
</table>
For a housing project to be holistically sustainable, in Nigeria’s context, the building materials used in its construction should be locally sourced and readily available. For a country which relies largely on the sale of crude oil, and is seeking diversification of its economy, with a substantial part of its populace living in poverty, economically sustainable housing should not only be affordable, but should aim at contributing maximally to local economy. This requires that effort be made at ensuring that the benefits of the entire process is as much as possible accrued to the local economy.

**CONCLUSION**

Sustainable housing delivery in Nigeria, should be viewed as a process of continually delivering housing which contributes to the achievement of the overall goal of sustainable development, and specifically, economic development. This should be based on a holistic look at the three pillars of sustainability - environment, culture and economy with reference to the local concerns and challenges. This is because each of these pillars still poses great challenge to housing delivery in Nigeria. The adoption of foreign sustainable housing design concepts without reference to local context negates the core values of sustainability. An integrated approach to this demands the pursuit of objectives which do not address one dimension of sustainability at the expense of the others. There is therefore a need to examine
Nigeria’s housing programmes and initiatives to ensure that a large share of their benefits accrue to Nigeria and not foreign entities.

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INFLUENCE OF COMMITMENT AND DISTRIBUTION ON THE PERFORMANCE OF KANO STATE ZAKKAH AND HUBSI COMMISSION

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Abstract

Zakkah is a religious duty; it is one of the five pillars of Islam; hence, it is obligatory on every Muslim who has the financial means (nisab). In the Islamic system zakkah plays various important roles which cover religious, social and economic roles. This study examines the influence of commitment and distribution on the performance of Kano State Zakkah and Hubsi commission (KSZHC). A survey research design using drop and pick method of data collection was employed on 261 respondents. The data were analysed using regression analysis through Statistical Package for Social Sciences (SPSS) version 20. The results reveal that, commitment is not significantly related to the performance of KSZHC with P-value (p > 0.001), while distribution is significantly related to the performance of KSZHC with P-value (p < 0.001). The study will provide relevant information that is useful to policy makers and will also serve as the basis for further studies that could contribute to the general performance of KSZHC. It is recommended based on the findings of the study that; (i) There is need for Islamic scholars and government to strengthen their effort in enlighten the public about the importance of giving out their Zakkah through KSZHC by organising seminars, workshops etc. (ii) Adequate operational facilities and staff should be provided to the commission to enable it discharge its responsibilities effectively and help in improving its performance.

Key Words: Zakkah, Nisab, distribution, commitment, performance.

1.0 Introduction

Zakkah is a religious duty; it is one of the five pillars of Islam; hence, it is obligatory on every Muslim who has the financial means (nisab). Nisab is considered an amount equal to the essential needs of a person or family for one year (Ali & Hatta, 2014). Zakkah literally means to grow, to increase and to purify (Mahmud & Haneef, 2009). Zakkah have been mentioned in the holy Qur’an and the Sunnah of prophet Muhammad (PBUH) a number of times. It is an important mechanism for redistribution of wealth, bridging the gap between rich and poor and poverty eradication in Muslim community. However, zakkah is not only an institution for the purpose of poverty eradication. Poverty can be tackled through other means such as sadaqah which is non-obligatory actions, where it is left to a giver's faith and
charitable nature to give without being asked believing that the Almighty will compensate him and hoping for a greater reward (Ali & Hatta, 2014).

In most contemporary Muslim countries, zakkah is collected through a decentralized and voluntary system, where eligible Muslims are expected to pay the zakkah. Under the voluntary system, zakkah committees are established which are tasked with the collection and distribution of zakkah funds. In a handful of Muslim countries, zakkah is obligatory, and is collected in a centralized manner by the state (Mahmud & Haneef, 2009). Mobilization and distribution of zakkah in a centralized manner makes the process systematic (Yusuf, 2000). Countries such as Indonesia, Brunei, Sudan, Yemen, and Saudi Arabia already have compulsory zakkah administration (Ali & Hatta, 2014).

In Nigeria, some states like Kano, a commission Kano State Zakkah and Hubsi Commission (KSZHC) were established in 2003 which is charged with responsibility of zakkah collection and disbursement within the state (KSZHC, 2004). Since its establishment more than a decade ago, the performance of the commission has not been impressive this may be as a result of poor commitment and distribution of zakkah by the commission. The table 1 below summarises the mobilisation of zakkah by KSZHC from 2004 to 2013.

Table 1: Summary of zakkah mobilization by KSZHC from 2004 to 2013

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount in Naira</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>11,301,347.46</td>
</tr>
<tr>
<td>2005</td>
<td>4,968,676.27</td>
</tr>
<tr>
<td>2006</td>
<td>8,854,135.90</td>
</tr>
<tr>
<td>2007</td>
<td>10,035,819.35</td>
</tr>
<tr>
<td>2008</td>
<td>9,554,820.00</td>
</tr>
<tr>
<td>2009</td>
<td>10,034,616.90</td>
</tr>
<tr>
<td>2010</td>
<td>12,915,800.00</td>
</tr>
<tr>
<td>2011</td>
<td>6,350000.00</td>
</tr>
<tr>
<td>2012</td>
<td>6,876,000.00</td>
</tr>
<tr>
<td>2013</td>
<td>12,500,000.00</td>
</tr>
</tbody>
</table>

Source: KSZHC 2016

Table 1 above shows the performance of the commission in relation to zakkah mobilisation. It is evident that the performance of the commission is not impressive. For instance in 2004, the amount mobilised was Naira 11,301,347.46 and this figure deflated in 2004 to Naira 4,968,676.27 (KSZHC). This variation may not be unconnected with lack of commitment by the organisation on zakkah mobilisation which adversely affects its effective distribution. This motivated the study to investigate the performance of KSZHC in relation to organisation’s commitment and zakkah distribution. The objectives of the study are to:

i. determine the relationship between organisation’s commitment and performance of KSZHC since its establishment;

ii. determine the relationship between zakkah distribution and performance of KSZHC.

The remaining part of this paper is organised as follows: Section two is a brief literature review of the previous studies on zakkah. Section three gives an insight on the
methodology employed in the study. Section four is the findings and discussion of results. Section five presents limitations, conclusions and recommendations based on the findings.

2.0 Literature review

2.1 Zakkah

The ultimate goals of zakkah are to reduce inequality and to establish human rights, social justice, and empowerment of the poor by poverty reduction in Muslim communities (Ali & Hatta, 2014). Zakkah regulates the wealth contribution in its minimum, making it a religious obligation from which the individual cannot evade or take concessions, since it is the right of the Muslim community to be devoted to the benefit of the needy and disabled individuals. In its proper sense, zakkah is a practical manifestation of the brotherhood between the faithful and establishes mutual solidarity between them by the firm bond it creates between rich and poor, in a way that strengthens the individual’s sense of relation to the community and the community’s awareness of the value of the individual, and that it is strengthened by his strength and weakened by his weakness (El-Khouly, 2013).

Islam establishes Zakkah as a compulsory for all well off Muslims. It is one of the effective instruments for suppressing poverty at the grass root as wealth is transferred from well-off people to worse-off people in the Muslims community. Anybody denying obligation of Zakkah ceases to be a Muslim (Hassan, 2010). Islam stated clearly the obligation to pay zakkah. Allah SWT says in Quran 2:43, “And be steadfast in prayer, practice regular charity…” (See also Q 2:83, 2:11, 9:18, 9:71; 22:78; 24:56; 33:33; 58:13; 73:20 98:5). Severe punishments await those who do not practice regular charity as stated in Quran 41:67 “And woe to those who join gods with God, those who practice not regular charity…” (See also Q 9:98; 69:25 – 36). Those who pay regular charity out of their wealth are rewarded both in this world and in the hereafter as stated in the Quran 2:227, “Those who believe, and do deeds of righteousness and establish regular prayers and regular charity, will have their reward with their lord. On them shall be no fear nor shall they grieve” (See also Q 4:162; 31:45; 27:3; 9:99; 5:12).

The category of people that are entitled to zakkah has been clearly stated in the Quran. Q 9:60 states “Alms are for the poor and the needy, and those employed to administer the funds, for those whose hearts have been recently reconciled to truth, for those in bondage and in debt; in the cause of God and for the wayfarer: (thus is it) ordained by God and God is full of knowledge and wisdom”.

2.2 Functions and economic importance of zakkah

Zakkah in the Islamic system plays various important roles which cover religious, social and economic roles. Some of these roles are identified by El-Khouly (2013) to include the following:

(a) Religious importance: In this regard, zakkah is a manifestation of the faith that affirms that God is the sole owner of everything in the universe, and what men hold is a trust in their hand over which God made them trustees to discharge it as He has laid down: "Believe in Allah and His Messenger and spend of that over which He made you trustees" (Quran 57:7). It is also an expression of thanks and gratitude the Almighty who said: "If you give thanks, I will give you more." (Quran 14:7) Therefore, zakkah in this respect is an act of devotion.

(b) Social importance: Zakkah promotes social stability by purifying the soul of the rich from selfishness and the soul of the poor from envy and resentment against society; it suppresses the channels leading to class hatred and makes it possible for the springs of brotherhood and solidarity.
Economic importance: This function is revealed in many ways: firstly, zakkah gives a strong incentive for investing wealth for the benefit of society and makes us refrain from hoarding it. Secondly, zakkah is a means of compulsory redistribution of wealth in a way that reduces differences between classes and groups, thus preventing the many social disorders from which Communist and Western societies alike suffer no less than contemporary Muslim societies that have neglected zakkah. Thirdly, it rectifies whatever wrongs, injustices or means of exploitation in trading and industrial relations that have arisen. Fourthly, it facilitates the proper direction of purchasing power in society. It transfers part of the power of consumption, which may be used extravagantly to fulfil a proper function in the lives of those who need it.

2.3 Zakkahable wealth

The Prophet (P.B.U.H.) in his time designated six common types of wealth which constituted income sources which are zakkahable. They were metals (gold and silver-minted and un-minted), agricultural crops (wheat, maize, barely, date and grape), mineral, treasure troves, livestock (camel, sheep and cow) and trade inventory (Gusau, 1992). The succeeding generations of scholars have added other growing sources of wealth to the above list. Today zakkahable wealth consists of agricultural wealth, animal wealth, underwater wealth, mineral wealth, industrial wealth, cash money, trade asset and income from shares, bonds, etc. (Mahmud and Haneef, 2009)

2.4 Who shall give zakkah?

Zakkah is mandatory on every Muslim who possesses the minimum Nisab, whether the person is man, woman, young, old sane or insane. The obligation to give zakkah in Qur’an and Sunnah is general and does not exclude young or insane. Allah (SWT) stated that: "Of their goods take alms so that thou mightiest purify and sanctify them..." (Al-Qur’an, 9: 103). Anas bin Malik reported that the Messenger of Allah (SAW) said: "Trade with the money of the orphan, lest it is eaten up by Zakkah" (At-Tabraani). In another Hadith `Amru bin Shuaib related from his grandfather that the Messenger of Allah said: "Whoever is entrusted with money of an orphan should trade with it and should not leave it sitting to be used up by charity" (Tirmidhi). The point of reference in these reports is that the Messenger (SAW) urged the trustee on the estate of people who due to age or other reasons cannot manage their own financial affairs, to invest it in a business that will yield a return and make it grow until they are in a position to do so themselves. For, if proper investment is not made with an orphan’s inheritance, it will be depleted by charity, thus leaving the orphan with little or nothing (Mahmud & Haneef, 2009).

However, before giving out zakkah, some conditions must be considered. Such conditions are identified by Mahmud and Haneef, 2009 to include; the person fully owns and has control over his zakkah payable wealth; He owns productive property (known as growing wealth” as defined by the classical jurists); He owns nisab-fulfilling wealth which is over and above of his basic needs (subsistence). In Islamic Jurisprudence, in order to be zakkahable, all zakkahable wealth must reach certain quantum. For instance, the quantum for cash money and business inventory is the value of 85 grams of gold; He owns such a quantum of money for duration of one year. However, there is consensus among Muslim scholars that it is mandatory on every believer who is financially able.

2.5 Who are the recipients of zakkah?

Those eligible to receive zakkah has been spelt out by Allah (SWT) in Quran 9:60 which states “Alms are for the poor and the needy, and those employed to administer the
funds, for those whose hearts have been recently reconciled to truth, for those in bondage and in debt; in the cause of God and for the wayfarer: (thus is it) ordained by God and God is full of knowledge and wisdom” The above categories of people eligible to receive zakkah can be demonstrated in the following chart 1.

Chart 1: The eight head of zakkah expenditure

(Adapted from Gusau, 1992)

The above chart demonstrates how a mobilized zakkah funds can be expended among its eight head expenditure prescribed in the holy Quran. (See Quran 9:60).

Although eight categories of recipients have been mentioned in the Qur’an, it is not compulsory to divide the zakkah fund equally among them. According to Al-Qaradawi (1999), in Ahmad and AbdRahman (2012), if all the categories of recipients require similar amount of zakkah fund, then it must be divided equally among them. However, if some recipients require more zakkah than the others, they can be given more money from the zakkah fund. He clarified that it is left to the zakkah institutions or agents to distribute the fund to those recipients whose needs are greatest. However, it is generally believed that the main priority of zakkah fund must be given to the first two categories of recipients; hard core poor (Al-Fuqara) and poor (Al-Musakin) (Ahmad & AbdRahman 2012).

2.6 Commitment and organisational performance

Commitment has been considered much important due to its impact on job attitudes such as presentation, non-attendance, and turnover intentions (Ahmad, Veerapandian & Ghee, 2011; Lokand & Crawford, 2001; Rangriz & Mehrabi, 2010). Allen and Meyer (1990)
conceptualized a form of organizational commitment and classified three parts: affective, continuance, and normative commitment. However, Steers (1977), Chew & Chan, (2006) found that commitment was generally unconnected to performance (weak relationship). But this is not in agreement with Miller and Lee (1999) who establish that organizational commitment was absolutely related to the financial performance. This means that organizational commitment could have an effect on the organizational performance. Considering the previous studies, it seems to be that there is a link concerning organizational commitment and its performance.

2.7 Distribution and organisational performance

Distribution is the handling and moving of anything inform of physical goods within organisation or industrial firms. Gong, Law, Chang, and Xin (2009) believed that, distribution involves the planning and implementation of physical flow of materials and from one point to another. In the context of KSZHC, one can view distribution as involving the planning and implementation of the physical flow of zakkah from point of mobilisation to the final recipients. The link between distribution and performance is that effective distribution system as reported by Oladun, (2012) is useful and has positive effect to performance especially when the final beneficiaries derive level of satisfaction. Therefore, distribution is positively related to organisation’s performance.

Chatr2: Research Framework

H1: Commitment is significantly related to organisational performance (KSZHC)
H2: Distribution is significantly related to organisational performance (KSZHC)

3.0 Methodology of the Study
3.1 Sample and Data Collection

The population consisted of 4,683 people eligible to give out zakkah in KM based on the list of KSZHC (KSZHC, 2004). Based on this, the study employed survey research design on which three hundred and fifty seven (357) questionnaires were administered to respondents based on Kreycie and Morgan (1970) table for determining the sample size reproduced by Haruna (2010). These include business men and civil servants whose income reach or pass Nisab and are eligible to give zakkah Nonetheless, government ministries and traders’ associations are some of the meeting points of vast number of civil servants and businessmen respectively; hence, they were used as one of the mediums of administering the questionnaires to their respective respondents. The questionnaire items on performance, commitment and distributions were adapted with modification from the studies of Gorondutse & Hilman 2013; Mowday, Porter & Steers, 1982 and Oladun, 2012 respectively. Each adapted item was assessed on a five-point Likert scale on which strongly agreed, agreed, neutral, disagreed and strongly disagreed are represented by 5,4,3,2 and 1 respectively. All the respondents were randomly selected. Out of the 357 questionnaires distributed, 261 were successfully completed and returned representing 73% response. 12 copies of questionnaire were discarded due to number of missing data and 4 cases were
identified through the process of Mahalanobis distance analysis, as multivariate outliers with P value <0.01. These respondents were automatically deleted leaving 245 cases for analysis. SPSS version 20 was used for the data analysis.

3.1 Reliability values
In determining the accuracy of measures, reliability and validity methods are employed (Aliyu and Rosli, 2014). The accuracy of measure, reliability test method is shown in table 2 below. After computing the cronbach alpha report shows that coefficient of organisation’s performance, organization’s commitment and Organisation’s distribution are: 0.709, 0.620 and 0.583 respectively. According to Sekaran (2003), any value of cronbach alpha coefficient greater than 0.5 is deemed to be accepted. Hence, it can be concluded that the instrument adapted in this study are reliable, since none of the item is with less than 0.5 (Aliyu, Ibrahim, Kamariah, Abdullahi, Popoola, Musa, Kabiru & Othman 2013). See table 2 below.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Source</th>
<th>Internal reliability Cronbach alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisation’s Performance</td>
<td>Gorondutse &amp; Hilman, 2013</td>
<td>0.709</td>
</tr>
<tr>
<td>Organisation’s Commitment</td>
<td>Mowday, Porter &amp; Steers, 1982</td>
<td>0.620</td>
</tr>
<tr>
<td>Organisation’s Distribution</td>
<td>Oladun, 2012</td>
<td>0.583</td>
</tr>
</tbody>
</table>

4.0 Results and discussion
4.1 Demographic characteristics of the respondents
Table 3 below is the demographic characteristics of the respondents. The table shows that, 241 (98.4%) of the respondents are male while 4 (1.6%) are female. 132 (53.8%) of the respondents belong to age group between 46-60 years, 12 (4.9%) are between 18-30 years, while 43 (17.5%) fall between 31-45 years and 58 (23.8%) are above 60 years. With regards to respondents’ education, 71 (29.0%) are SSCE/Undergraduate, 98 (40.0%) have Diploma, 59 (24.1%) are Degree/HND holders, 6 (2.4%) have masters and 11 (4.5%) belong to others. See table 3 below.

Table 3: demographic characteristics of the respondents

<table>
<thead>
<tr>
<th>Demographic characteristics of the respondents</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>241</td>
<td>98.4%</td>
</tr>
<tr>
<td>Female</td>
<td>4</td>
<td>1.6%</td>
</tr>
<tr>
<td><strong>Age:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-30 years</td>
<td>12</td>
<td>4.9%</td>
</tr>
<tr>
<td>31-45 years</td>
<td>43</td>
<td>17.5%</td>
</tr>
<tr>
<td>46-60 years</td>
<td>132</td>
<td>53.8%</td>
</tr>
<tr>
<td>Above 60 years</td>
<td>58</td>
<td>23.8%</td>
</tr>
<tr>
<td><strong>Education:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSCE/Undergraduate</td>
<td>71</td>
<td>29.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Diploma 98 40.0%
Degree/HND 59 24.1%
Masters 6 2.4%
Others 11 4.5%
(Source: Field work 2016)
The results of the multiple regression analysis are shown in Table 4 below. Regarding to overall model fit, looking at Table 4 indicates that the coefficient of determination, \( r^2 \) is 0.477, this shows that 47.7% variance is accounted and the implication is that the contribution of the variable to the model is substantial and this gives room for variance between the regressors and the regressant. This is supported by the Cohen classification that suggests 0.26 = substantial, 0.13 = moderate and 0.02 = weak (Cohen, 1998). Also, the Durbin–Watson result indicates that there is no autocorrelation in the range 1.5–2.5. Overall, therefore, the model fit is acceptable.

### Table 4: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R Square Change</td>
<td>F Change</td>
<td>df1</td>
<td>df2</td>
<td>Sig. F Change</td>
</tr>
<tr>
<td>1</td>
<td>.695a</td>
<td>.483</td>
<td>.477</td>
<td>.49987</td>
<td>.483</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Zakkah Distribution, Organisation’s Commitment
b. Dependent Variable: Organisation’s Performance

From the ANOVA Table 5 below, it can be seen that the regression fit is acceptable (p < 0.001). In terms of multicollinearity, the variance inflation factor (VIF) for all the variables is not greater than five or ten; hence multi-collinearity is within the conventionally acceptable levels (Hair, Black, & Babin, 2010).

### Table 5: ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>56.245</td>
<td>3</td>
<td>18.748</td>
<td>75.034</td>
<td>.000b</td>
</tr>
<tr>
<td>1</td>
<td>Residual</td>
<td>241</td>
<td></td>
<td>.250</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>116.463</td>
<td>244</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Organisation’s Performance
b. Predictors: (Constant), Zakkah Distribution, Organisation’s Commitment

In table 6 below, the Pearson correlation between commitment and performance of KSZHC is 0.475, this suggests that their correlation is acceptable because it is between 0.3 and 0.9. While distribution to performance is 0.18 which is less than 0.3 this suggests that, the correlation is low.
Table 6: Correlations

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OrgPerform</td>
<td>1.000</td>
<td>.476</td>
<td>.018</td>
</tr>
<tr>
<td>OrgCommit</td>
<td>.476</td>
<td>1.000</td>
<td>.116</td>
</tr>
<tr>
<td>ZakDistribution</td>
<td>.018</td>
<td>.116</td>
<td>1.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sig. (1-tailed)</th>
<th>OrgPerform</th>
<th>OrgCommit</th>
<th>ZakDistribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZakDistribution</td>
<td>.391</td>
<td>.035</td>
<td>.</td>
</tr>
<tr>
<td>OrgPerform</td>
<td>245</td>
<td>245</td>
<td>245</td>
</tr>
<tr>
<td>OrgCommit</td>
<td>245</td>
<td>245</td>
<td>245</td>
</tr>
</tbody>
</table>

N

ZakDistribution 245 245 245

Table 7: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B               Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.882</td>
<td>.331</td>
<td>2.666</td>
<td>.008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Org. Commitment</td>
<td>.233</td>
<td>.073</td>
<td>.175</td>
<td>3.211</td>
<td>.002</td>
<td>.725</td>
</tr>
<tr>
<td>Zak. Distribution</td>
<td>-.018</td>
<td>.061</td>
<td>-.014</td>
<td>-.301</td>
<td>.764</td>
<td>.984</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Org. Performance

Next is to look at the coefficient table 7 to assess the regression estimates of the hypothesized relationships to determine if they are significant. The analysis highlighting the relationships between distribution and KSZHC’s performance shows they are statistical significant with p value (p < 0.001). Thus, Distribution plays role in KSZHC’s performance and therefore, H2 is accurate and statistically significant. Therefore, we fail to reject H2. This is in conformity of the findings of Oladun, (2012) which shows positive relation between effective distribution and organisation’s performance.
The revealed relationship between organisation’s commitment on KSZHC’s performance shows that they are statistically insignificant ($p > 0.001$). Thus, organisation’s commitment does not play a significant role on KSZHC’s performance. Based on this study therefore, $H_1$ is not accurate. Thus we fail to accept $H_1$ and conclude that, commitment is not significantly related to KSZHC’s performance. This is in line with findings of Steers (1977), Chew & Chan, (2006) which found that commitment was generally unconnected to performance (there is a weak relationship). Similarly, this is in line with findings of Gorondutse and Hilman, (2013). But the results are not in line with the findings of Miller and Lee (1999) who establish that organizational commitment was absolutely related to performance.

The findings of this study have significant contributions that can be categorised under contribution to the stakeholders and practitioners and contribution to the body of knowledge. In terms of contribution to the stakeholders and practitioners, the study gives an insight that, there is a positive link between distribution of Zakkah and performance of KSZHC. In terms of contribution to the body of knowledge, the study provides platform for further examination on why organisation’s commitment and mobilisation are not significantly related to the performance of KSZHC.

5.0 Implication of the study, limitation and suggestion for future studies

The current study has theoretical contribution in the sense that, it reveals the insignificant effect of commitment on mobilization and distribution on the performance of KSZHC. The findings of this study will benefit the zakkah administrators, regulatory bodies (such as the council of ulamas), government at national, state and local levels and will also serve as reference to future studies. The study has a number of limitations. Firstly, the data for the study were mainly collected from a selected local government in Kano (KM). Thus, the findings are based on data from a single local government and caution must be taken when generalizing the results of this study to other local governments and states. Secondly, the direct effects of the independent variables (commitment and distribution) on the dependent variable (performance) are difficult to conclude. In order to overcome some of these limitations, future studies of larger sample size and examination of other zakkah commission are highly recommended. Thirdly, lack of true randomization in the sampling procedure is another limitation of the study. Fourthly, the selection of the study area is by researchers’ discretion. Considering the importance of the subject under study the researchers are recommending for further studies on the same area and similar areas such as the position of zakkah in social welfare from the Islamic point of view, possible position of zakkah in Islamic finances etc.

5.0 Conclusion

The present study examines the influence of organisation’s commitment and distribution on the performance of KSZHC in Kano state. Based on the findings of the study, the analysis highlighting the relationship between distribution and KSZHC’s performance is in the expected direction ($p < 0.001$). Thus, distribution is significantly related to KSZHC’s performance. But as revealed by the study, commitment is not significant influence on the performance of KSZHC because the p value is greater than 0.001 ($p > 0.001$) Thus, commitment is not significantly related to performance of KSZHC.

5.1 Recommendations
Based on the findings of the study, the following are recommended:
1. Since commitment does not influence the performance of KSZHC based on this study, there is need for Islamic scholars and government to strengthen their effort in enlighten the public about the importance of giving out their Zakkah through KSZHC by organising seminars, workshops, printing of pamphlets, advertisement, organising TV programmes etc. these would help increase the awareness of existence of the commission and improve its performance.

2. The Nisab (the zakkahable minimum amount) should be published on monthly basis by the commission and communicate same to the general public. This would help public in getting adequate information about income valuation.

3. Adequate operational facilities and staff should be provided to the commission to enable the commission discharge its responsibilities effectively. Facilities to be provided include sound and functional operational vehicles, computers to each office, internet access to the staff, standby generating set and above all a permanent structure should be allocated to the commission. In the area of staffing, those with adequate education on zakkah both Islamic and western should be appointed to head the commission under the supervision of the council of ulamah (Islamic scholars) this would help improve the performance of the commission.

4. The commission’s staff should be given adequate training. Seminars, workshops etc. should be organised for the staff at least twice a year. A study trip to countries that have centralized zakkah collection and disbursement commissions such as Saudi Arabia, Brunei, Sudan, Pakistan, Yemen etc. should be organised for the staff to go and study the way these countries handle their activities on zakkah, copy from their success and learn from their challenges and this would help improve the performance of KSZHC.

5. On the disbursement of zakkah to the deserving recipient, it is recommended that a committee be should be inaugurated which would be charged with responsibility of verifying the genuineness of the claims by the recipient to check false claims. It is also advised that women should be part of staff because sometimes it is difficult for male staff to effectively verify any claim by women. Female staffs are at the better position to handle such task. This would also help improve the performance of the commission.
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IMPACT ASSESSMENT OF THIRD NATIONAL FADAMA DEVELOPMENT PROJECT ON PROVISION OF SMALL-SCALE COMMUNITY-OWNED INFRASTRUCTURE FOR POVERTY REDUCTION IN KUBAU AND MAKARFI LOCAL GOVERNMENT AREAS, KADUNA STATE, 2009-2013

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Abstract

In Nigeria, the provision and maintenance of rural infrastructure was largely carried out by the government without the consultation of the beneficiary communities. This practice resulted to poor maintenance of infrastructure resources and for most part, absence of community-owned infrastructures. However, the level of infrastructural deficits in Kaduna State has not only contributed to poor living conditions of rural dwellers but has further exacerbated the incidence of poverty. This study, therefore, assessed the impacts of NFDP III on provision of SCIs for poverty reduction. Economic Theory of infrastructure and commons management developed by Frischman in 2005 was used as theoretical guide to the study. The target population of the study consisted of 155 sampled populations drawn from selected FCAs (Likarbu, Kubau and Gazara, Makarfi) and Coordinators/Facilitators of the project. Data for the study was analyzed using mean and standard deviation. Pearson correlation was run to test the Null Hypothesis at 0.05 level of significance. The study found that beneficiaries were provided with access roads, irrigation and storage facilities as well as marketing infrastructures. The use of these SCIs by the beneficiaries has led to i) increased food production; ii) increased income; iii) increased welfare, and v) community empowerment. Based on this finding, there is the indication that NFDP III has significant impact on poverty reduction. The study therefore, recommends that, both the International funding agencies and the governments of Nigeria should show their continued commitments by designing an action plan that will ensure adequate provision, maintenance and promotion of SCIs for sustainable poverty reduction.

1.1 Introduction

In today’s world, Small-scale Community-owned Infrastructure (SCI) has become one of the dominant strategies for community empowerment and poverty reduction. In agriculture-based communities, development projects are tailored towards the provision of paved and stock routes, bridges and culverts, storage facilities and marketing infrastructures, et cetera. The rural areas housed over 70% of the Nigeria’s population most of those who live in extreme poverty, are peasant farmers (NBS, 2012). Further, the National Bureau of Statistics expressed that the rural areas, record a higher incidence, depth and severity of poverty due to their dependence on low-productivity agriculture, lack of access to opportunities and poor social and economic infrastructures.

In order to promote the livelihood of the rural poor, the FGN and the World Bank designed the Third National Fadama Development Project (NFDP III) with a sector goal to reduce poverty by improving the living conditions of the rural poor; contribute to food
security and increase access to rural infrastructure (PIM-NFDP III, 2009:1). According to Rural Infrastructure Manual No. 4, (NFDP III, 2009:1), SCI is categorized into two: i). Community-owned Infrastructure (CI) such as low cost irrigation systems; feeder roads and drainage systems, and ii). Other infrastructures support sub-components include: Ventilated Improved Pit (VIP) latrine; water point borehole; cold storage room and cooling sheds at all markets. The interplay of these connectivity infrastructure (access roads, bridges, and culverts, et cetera) and fixed-point service infrastructure (market facilities, water point borehole, et cetera), and production-enhancing infrastructure (low cost irrigation and storage facilities e.g. tube wells, watering cans, cold storage room and cooling shed) can portent greater impacts on social and economic wellbeing of the poor.

The NFDP III was implemented in all the 23 Local Government Areas (LGAs) of Kaduna State. The project supported *fadama* communities to construct 67.2km of rural (*fadama* and access) roads and 260 number of market stalls to open up farmlands and to develop marketing infrastructures (KDSFDO, 2014). The Project provides 90% grants whilst the beneficiaries contribute 10% of the investment costs either in cash or in material and labour. This study therefore, is to assess the extent to which NFDP III reduced poverty through provision of SCIs in Kubau and Makarfi LGAs, Kaduna State.

1.2 Statement of the Problem

For nearly three decades, the agricultural sector of Nigeria suffers infrastructural decay which considerably led to the underperformance of the sector. Correspondingly, IFAD’s (2011) report on rural poverty for Nigeria established that, poverty remains predominantly rural problem and is largely attributed to the poor state of infrastructures.

Prior to the implementation of NFDPs in Nigeria, the provision and maintenance of rural infrastructure was largely carried out by the government without the consultation of the actual beneficiary communities. This practice resulted to poor maintenance of infrastructure resources and for most part, absence of community-owned infrastructures. According to the African Development Fund’s (AfDF) reports, as at year 2000, nearly all the 90,000 km of feeder and access roads constructed in 1980s through State-wide Agricultural Development Projects (ADPs) and Directorate for Food, Roads and Rural Infrastructure (DFRRRI) are virtually lost due to lack of community ownership and poor maintenance (AfDF, 2003:3).

Revealing the extent of infrastructural deficits in Kaduna State, Mid-term Reviews (MTRs) and Implementation Completions Reports (ICRs) (NFDPII, 2007; 2010) maintain that, about 60% of rural communities lacked good *fadama* and access roads. Conversely, an estimated 15-20% of the total productions of grains are lost or wasted annually due to inaccessible road networks; poor storage facilities and lack of marketing infrastructures (KDSFDO, 2014). This levels of inadequacy has not only contributed to poor living conditions of rural dwellers but has further exacerbated the incidence of poverty. The concern of this study is; to what extent has NFDP III reduced poverty through provision of SCIs in Kubau and Makarfi LGAs, Kaduna State? The specific questions are: To what extent has NFDP III provided SCIs to the beneficiaries in Kubau and Makarfi LGAs? How have the beneficiaries used the SCIs to reduce the incidence of rural poverty? And what are the challenges faced by the beneficiaries in the use of the SCIs?

1.3 Objectives of the Study

The main objective of this study is to assess the extent to which NFDP III reduced poverty through provision of SCIs in Kubau and Makarfi LGAs, Kaduna State. Other specific objectives of the study are to:
1. Determine the extent to which NFDP III provides SCIs to the beneficiaries in Kubau and Makarfi LGAs;

2. Ascertain the use of these SCIs to reduce poverty amongst the beneficiaries, and

3. Identify the challenges faced by beneficiaries in the use of the SCIs.

1.4 Hypothesis

H₀: There is no significant relationship between the level of provision of Small-scale Community-owned Infrastructure and reduction in the incidence of rural poverty in Kubau and Makarfi LGAs of Kaduna State.

1.5.1 Scope and Limitations of the Study

The study spans the period of 2009-2013. This was determined by the fact that all Local Development Plans (LDPs) prepared by FCAs/FUGs in Kaduna State after December, 2013 did not receive approval despite project implementation review/extension to December, 2017 (KDSFDO, 2014). This time frame notwithstanding, covers significant years of the project life cycle. Kubau and Makarfi LGAs were purposively selected because of their high irrigation potentials with dominance in irrigation farming. This study concerns itself with provision of SCIs. These consist of provision of access roads, market and storage facilities and low cost irrigation systems. These specific infrastructure resources (connectivity, fixed-point service and production-enhancing infrastructures) were chosen because of their significant impacts on people’s living conditions and poverty reduction.

As Scott, et al. (2006) expressed, every research has its peculiar challenges depending on the specific context within which it is carried out. This study encountered quite a number of challenges. The major ones are: (i) the fist challenge was the difficulty to establish links from State Fadama Development Office in Kaduna to the Local Fadama Desk Offices in Kubau and Makarfi LGAs. This was because many LFDOs were ad-hock staff some of which are not residents of the LGAs coupled with the fact that the implementation of NFDP III nearly stopped since December 2013. Except with assistants from SFDO, the researcher could not have been able to contact any of the Local Facilitators; (ii) there was also a challenge of meeting with the FCAs and FUG units to administer questionnaires and for appointment to conduct FGDs with target groups; (iii) there was also the difficulty to cover the ten (10) units to observe what were on ground, and lastly (iv) there was no baseline on income levels of the beneficiaries before the implementation of NFDP III. We only relied on key performance indicators set out by the project measured as 75% of the beneficiaries should have increased their average income levels by at least 40%.

1.6 Significance of the Study

This study is timely because of the efforts made by the International funding agencies; the federal and State governments in Nigeria towards pursuing the mandates in the fight against poverty and in addressing the infrastructural decay for rural transformation. The relevance of this study lies in its focus towards attempt to link provision of SCI and poverty reduction. In Kaduna State, attempts to establish the relationship between rural infrastructure and poverty reduction have received far less attention. Except for Porter (2002); Adam and Bevan (2004); Levy (2006); Fakayode, et al. (2008); Adeoye, et al. (2011); Adepoju and Salman (2013)that studied rural infrastructures in Nigeria, there are, to the best of our knowledge, very few studies that integrate such consideration. This study attempted to fill this knowledge gap and contribute to knowledge.
2.1 Literature Review and Theoretical Framework

Development projects as operationally defined by the Project Coordinating Unit (PCU) (2005:3) are Small-scale projects designed to promote increased crop production in the fadama land. They take the forms of Community-owned Infrastructure (CI) which according to Rural Infrastructure Manual No. 4 (NFDP III, 2009:1), consist of low cost irrigation systems; feeder roads and drainage systems, and other infrastructures support sub-components such as Ventilated Improved Pit (VIP) latrine; water point borehole; cold storage room and cooling sheds at all markets. For example, along with road construction, lays improved access to other basic infrastructures. Investments in storage facilities can reduce the risk of food spoilage and other loss, higher gains for agricultural produce which in turn, results to increase in productivity and higher incomes. These cyclical chains, will improve the general wellbeing of rural dwellers.

As expressed by Loewen (2009), poverty when viewed in absolute terms is interpreted to mean lack of resources to needs for survival. Relative poverty, on the other hand is interpreted as lack of resources to achieve a standard of living that allows people to play roles, participate in relationships, and to live a life that is deemed normative of the society to which they belong. However, the Federal Office of Statistics (FOS) (1999:109) was definite in categorizing the causes of poverty in Nigeria into problems of access and endowments such as: Inadequate access to markets for the goods and services that the poor farmers can sell. Therefore, inadequate or lack of infrastructure is closely related to poverty in that availability of infrastructure resources can help people to meet their needs for survival, allow them to relate with others and have a better living conditions.

In World Bank’s (2011) view, impact evaluation is anchored on monitoring of a given programme. Monitoring is defined as a continuous process that tracks what is happening with a programme that is implemented and day-to-day management and decisions. When conducting an impact study, expected results must be succinctly stated; indicators of sustainable increase in income must be selected and indicators of outcome (impact) must be measured. For example, the NFDP III project seeks to empower the beneficiary communities through provision of rural infrastructure. We therefore, assessed the impact of the NFDP III project through a range of SCIs being offered by the NFDP III to the beneficiary communities. The test instruments that guided us in this study contain amongst other things, increased food production; increased welfare; increased income, and community empowerment. These indicators were tested to show evidence whether NFDP III has significantly reduced poverty.

Empirical evidences on the effects of investments in infrastructure on rural poverty have demonstrated the following: In Nepal, Jacoby (2000) provides evidence of the effective distributional effect of rural roads, because farmers in remote areas are typically poorer than those in less-isolated areas. Jacoby concludes that road is an asset to any rural setting as it provides the farmers access to their farms, link them with urban centres and lead to changes in their social and economic wellbeing. In Indonesia for example, Kwon’s (2001) study had shown that a 1% increase in road investments is associated with a 0.3% decrease in the incidence of rural poverty. Jalan and Ravallion (2002) find that road density was one of the significant determinants of household-level prospects of escaping poverty in rural China; the study demonstrates that for every 1% increase in the number of kilometers of roads per capita in poor regions in China, household consumption rose up by 0.08%.

In Nigeria, Adeoye, et al. (2011) investigates the impact of rural infrastructure and profitability of farmers under the NFDP II in Oyo State. The study made use of primary data collected from two hundred and sixty-four (264) farmers (beneficiaries and non-beneficiaries) through a multi-stage sampling technique. The result showed that more than halve (59.1%) of the villages that participated in the NFDP II have more infrastructures than non-
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Fadama villages. Moreover, they were found to be significantly better-off in a number of areas including agricultural production, and household income. This implies that NFDP II has contributed significantly to the development of infrastructures in Oyo State. Therefore, studies highlighted above, have demonstrated the relationships between provisions of rural infrastructure and poverty reduction.

2.2 Theoretical Framework

The theoretical framework adopted for the study is the Economic Theory of infrastructure and commons management. The theory was developed by Frischman in 2005. Frischman, developed an economic theory of infrastructure that provides a better understanding of societal demand for infrastructural facilities. The term infrastructure, generally conjures up the notion of physical resource systems made by humans for public consumption.

The theory has four core components. These are: Public access to infrastructure; the value of infrastructure when used as input into a wide variety of productive processes; the management of infrastructure resources; and people’s empowerment. Infrastructure resources according to Frischman, constitute an important class of resources on which society should place “a very high value on public access.” In the views of Frischman, infrastructures are fundamental resources that generate value when used as input into a wide range of productive processes. Managing infrastructure resources is done in an openly accessible manner. People are therefore empowered to engage in the production of certain goods that are desirable.

In relation to this study, infrastructure resources such as fadama and access roads, bridges and culverts, water point boreholes, market stall, cooling shed, spillway and distribution canals, et cetera when adequately provided or significantly promoted will serve as inputs that can generate value in the productive processes (human consumption and industrial activities), stimulate growth in agricultural and industrial sectors as well as improving the living conditions of individuals. In particular, the provision of access roads and market infrastructures are largely public goods which generate positive externalities that benefits society as a whole.

3.1 Methodology

The research design for this study is survey with a mixed strategy of quantitative and qualitative methods. Questionnaire instrument, interview and observation were the major instruments of primary data collection for the study. On the other hand, the secondary data sources for the study were obtained from Appraisal reports, Project Implementation Manuals (PIMs), Mid-term Reports (MTRs) and Implementation Completion Reports (ICRs), Local Development Plans (LDPs) et cetera.

In order to determine the population of the study, the list of all registered FCAs and FUGs as direct beneficiaries and project staff as Facilitators were obtained from the State Fadama Development Office, Kaduna. Two sets of structured questionnaires were designed for the study. The content of the questionnaire was structured using Likerts’ scale. Respondents were expected to rate, agree or disagree to varying degrees, the intensity and feelings to a given statement. Two scaling methods were used. For example, to share the views of the beneficiaries on impact of the project, we used the first rating scale demonstrated below whilst to assess the effectiveness of project implementation by the project coordinators/facilitators, the second rating scale was used.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
The decision rule for accepting or rejecting a statement on respondents’ views was scored at \((5+4+3+2+1= 15/5 = 3.0)\). Therefore, a statement is rejected if the mean score value is below 3.0 and is accepted if otherwise.

Purposive, cluster and stratified sampling method were used there-in, multi-stage sampling technique adopted. The first stage involved purposive selection of two LGAs with high irrigation potentials and dominance in irrigation farming; the second stage involved random selection of two FCAs in the study areas. Ten FUGs, five (5) each were clustered and randomly selected. On the other hand, stratified sampling was applied to for the Fadama Officials based on sub-domain i.e. SFDOs and LFDOs.

**Table 3.1.2: Target Population of the Study**

| Likarbu Tomatoes Production Cluster Cooperative Union, FCA-Kubau (KDS, 11709) 20 Officials | Gazara Fadama Farmers Cooperative Limited, Makarfi (KDS, 6658) 20 Officials |
| Gimbawa-Zuntu Fadama Farmers (25 Members) | Anguwan Galadima Fadama Cooperative Society (24 Members) |
| Zuntu-Koni Multi-purpose Cooperative Society (15 Members) | Maraban T/Yari FCS Ltd (22 Members) |
| Wazabi-Zuntu Nasara Tomatoes (22 Members) | Anguwan Galadima II WMPCS (22 Members) |
| Durumi Fadama Farmers (18 Members) | Anguwan Wakili WMPCS Ltd (30 Members) |
| Zuntu-Central Fadama Farmers (19 Members) | T/Wada Makarfi-North FSC (38 Members) |
| **Total** 129 Members | 156 Members |

Source: Researcher’s Survey, 2016

As shown in Table 3.1.2 above, there are 285 project beneficiaries. Likewise, at the State and local level, there are 10 State Desk Officers and 4 Local facilitators (14). Therefore, the parent population of the study was determined to be two hundred and ninety-nine (299). Krejcie and Morgan’s (1970) population and sample’s size Table was used to draw the sample size (see Appendix I). The calculated table provided us with one hundred and sixty-nine (169) sample population.

**Table 3.1.3: Tabular Presentation of Population and Sample Size of the Study**

<table>
<thead>
<tr>
<th>NFDP’s Staff</th>
<th>Project-Beneficiaries (FCAs/FUGs)</th>
<th>NFDP’s Staff</th>
<th>Project-Beneficiaries (FCAs/FUGs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDOs Kaduna 10</td>
<td>10 -</td>
<td>8 -</td>
<td></td>
</tr>
<tr>
<td>FDOs in Kubau 2</td>
<td>Likarbu FCA 129</td>
<td>2 Likarbu FCA 73</td>
<td></td>
</tr>
<tr>
<td>FDOs in Makarfi 2</td>
<td>Gazara FCA 156</td>
<td>2 Gazara FCA 84</td>
<td></td>
</tr>
</tbody>
</table>
### 3.2 Data Presentation and Analysis

Data for the study was presented and analyzed with the aid of descriptive statistics such as mean and standard deviation. Pearson Correlation was run through Statistical Packages for Social Sciences (SPSS) to test the veracity of formulated Null hypothesis. The dominant variables operationalize in this study were provision of SCI and poverty reduction as independent and dependent variable components respectively. Reduction in the incidence of poverty amongst the project beneficiaries is dependent on the level of provision and uses of SCIs.

The decision rule for testing the null hypothesis for the study is “accept H₀ if the correlation coefficient result is less than 0.05 level of significance. Conversely, the H₀ will be rejected if correlation coefficient is above the preset threshold value (0.05).” However, the rate of returns for the Questionnaire instruments were that whilst 169 Questionnaires were distributed to the target population, 155 were duly filled and returned. Therefore, 155 respondents (92%) are considered adequate for analysis.

### 3.3: Project Beneficiaries’ Views on Extent of Provision of SCIs and Social and Economic Impact of the Project

<table>
<thead>
<tr>
<th>Impact Criteria</th>
<th>n</th>
<th>m</th>
<th>st Deviation</th>
<th>Decision Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Increased Food Production:</strong></td>
<td></td>
<td>9</td>
<td>11.89</td>
<td>Agree</td>
</tr>
<tr>
<td>Increased yields; Increased farmlands;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved seedlings/Breed;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased food security at community level, etc</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Increased Welfare:</strong></td>
<td></td>
<td>7</td>
<td>13.87</td>
<td>Agree</td>
</tr>
<tr>
<td>Increased nutrition;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity to acquire personal house; Access to health care; Capacity to send Children to School, reduction in rural-urban migration, etc</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Increased Income:</strong></td>
<td></td>
<td>2</td>
<td>8.352</td>
<td>Agree</td>
</tr>
<tr>
<td>Increased daily expenditure; Ability to save money; Increased income level (40%), acquisition of personal property- cars, motor cycle, bicycle, etc</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Empowerment:</strong></td>
<td></td>
<td></td>
<td></td>
<td>Disagree</td>
</tr>
<tr>
<td>FCA’s ability to identify owned project;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community’s ability to</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher’s Survey, 2016
develop LDPs; Community’s ability to invest in project.

**Extent of Provision of SCIs:**
- Access roads; Tube wells; watering cans; Cold storage room; Water point
- Borehole; Improved Ventilated Improved Latrine.

<table>
<thead>
<tr>
<th>Questionnaire items</th>
<th>J</th>
<th>n</th>
<th>Dev</th>
<th>sion Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community’s ownership of project</td>
<td>0</td>
<td>330</td>
<td>9</td>
<td>Agree</td>
</tr>
<tr>
<td>Community’s increased skills to develop LDPs?</td>
<td>0</td>
<td>9</td>
<td></td>
<td>low</td>
</tr>
<tr>
<td>Management of constructed infrastructures</td>
<td>0</td>
<td>4</td>
<td></td>
<td>low</td>
</tr>
<tr>
<td>Level of utilization of SCIs</td>
<td>0</td>
<td>864</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extent of food security</td>
<td>40</td>
<td>149</td>
<td>3.50</td>
<td>High</td>
</tr>
</tbody>
</table>

**N-values: 143. Source: Field Survey, 2016**

Based on the results obtained in Table 3.3 above, impact criteria with value number 1, 2, 3 and 5 i.e. increased food production, increased welfare, increased income, community empowerment and extent of provision of SCIs with mean value of 4.06, 4.42, 3.26, and 3.36 are above our established value of 3.0 for agreeing with the statements. Conversely, impact criteria the item value number 4 i.e. community empowerment with a mean of 1.32 fell below 3.0 suggesting that NFDP III has not significantly empowered the beneficiary communities for the period under study. Overall, the mean for assessing the impacts of the project was 3.284 which show that despite less community empowerment, the provision and uses of SCIs have positive and significant impacts on poverty reduction.

**3.4: Views of SFDOs, Kaduna and LFDOs, Kubau and Makarfi LGAs on Effective Implementation of the Project**

<table>
<thead>
<tr>
<th>Questionnaire items</th>
<th>J</th>
<th>n</th>
<th>Dev</th>
<th>sion Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community’s ownership of project</td>
<td>0</td>
<td>330</td>
<td>9</td>
<td>Agree</td>
</tr>
<tr>
<td>Community’s increased skills to develop LDPs?</td>
<td>0</td>
<td>9</td>
<td></td>
<td>low</td>
</tr>
<tr>
<td>Management of constructed infrastructures</td>
<td>0</td>
<td>4</td>
<td></td>
<td>low</td>
</tr>
<tr>
<td>Level of utilization of SCIs</td>
<td>0</td>
<td>864</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extent of food security</td>
<td>40</td>
<td>149</td>
<td>3.50</td>
<td>High</td>
</tr>
</tbody>
</table>

**N-values: 12. Source: Field Survey, 2016**

Based on Table 3.4 above, value of items number 1, 2, and 3 i.e. community’s ownership of project, community’s increased skills to develop LDPs and management of constructed infrastructures with mean values of 2.58, 2.67, and 2.17 are below our established threshold value of 3.00 meaning that these aspects of the project were rated very low. Conversely, items 4 and 5 i.e. level of utilization of SCIs and extent of food security with mean of 3.50 and 4.67 were rated high and very high. Nevertheless, the overall mean for
assessing the implementation is 3.11 meaning that it was rated high despite the low level of community participation.

3.5 Test of Null Hypothesis

<table>
<thead>
<tr>
<th>Pearson Correlations</th>
<th>Small-scale infrastructure</th>
<th>Poverty reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small-scale infrastructure</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.618</td>
<td>1</td>
</tr>
<tr>
<td>N</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Poverty reduction</td>
<td>Pearson Correlation</td>
<td>.169</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.618</td>
<td>1</td>
</tr>
<tr>
<td>N</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

Based on the output generated using SPSS for the study, the coefficient result of 0.618 is higher than 0.05 level of significance meaning that, provision of SCI is not only related to poverty reduction but, the two variables are statistically significant. Therefore, the Null Hypothesis which says “there is no significant relationship between the level of provision of Small-scale Community-owned Infrastructure and reduction in the incidence of rural poverty in Kubau and Makarfi LGAs of Kaduna State is rejected.” Hence, there is significant relationship between the level of provision of SCI and reduction in the incidence of rural poverty in the study areas.

3.6 Discussion of Results and Findings

The NFDP III was designed to amongst other things, support fadama communities to construct access roads, processing, irrigation, storage and marketing infrastructures. Of particular concern to this study is to: determine the extent to which NFDP III provided SCIs to the beneficiary’ communities; ascertain the levels of uses of SCIs to reduce the incidence of rural poverty and identify challenges faced by the beneficiaries in the use of the SCIs.

Results of this study indicate that the project has significantly impacted on the lives of the beneficiaries through increased in food production; increased welfare; increased income levels. Moreover, results show that the level of community’s participation was very low. This manifests in form of inability of FCAs to develop their LDPs and same lacking capacity to manage constructed infrastructures. However, the extent of provision of SCIs was rated high.

For example, results show that beneficiaries were provided with access roads of 3.5km access road in Kamfa-karaba in Kubau LGA and 3km access road in Gazara, Makarfi LGA. The provision of access roads enabled individuals to have better or improved living conditions, easy access to market thereby making people to engage in other off-farm activities. Also provided to the communities were tube wells and watering cans, surface irrigation, and water point boreholes, et cetera. The respondents also pointed out that the incidence of poverty will ever continue when infrastructural needs are not either provided or promoted.

Beneficiaries were also asked what they think were the improvements achieved so far in their communities with regards to social and economic wellbeing of individuals. As there is increased in food production, the extent of food security will to some extent improved. When this trend is sustained over time, food poverty trend will drastically reduce in the beneficiary communities. We have also observed the state of constructed infrastructure to determine their functionality. Whereas water point boreholes are functional in Kubau LGA, none of this
facility was functional in Makarfi LGA. Due to poor maintenance, the 3.5km access road in Kamfa-karaba in Kubau and 3km access road in Gazara, Makarfi were nearly washed by rains. In Kubau and Makarfi LGAs, many of the marketing facilities notably, VIP latrines were in complete state of disrepair. The outcome of our interviews shows that the major challenges faced by the beneficiaries were poor maintenance of established infrastructures, lack of capacity to develop LDPs, and inadequate levels of provision of SCIs and how sub-projects can be sustained in the long run.

3.7 Summary of Findings

Based on the results obtained in this study, the following findings were summarized: Beneficiaries were provided with access roads, irrigation and storage facilities as well as market infrastructures. The uses of these infrastructures led to changes in social and economic wellbeing of the beneficiaries. These changes manifested in: (i) increased food production seen in increased farmlands which promotes the extent of food security; (ii) increased in income levels evidenced in increased daily expenditure; ability to save money; acquisition of personal property; (iii) increased welfare evidenced in increased nutrition; capacity to acquire personal house; access to health care; capacity to send children to school, and reduction in rural-urban migration. Improvements in these welfare indicators are pointers that the incidence of poverty whether from absolute or relative terms, has reduced significantly. These significant changes were attributed to the increased incomes of the beneficiaries. It was also established in the Periodic Needs Assessment (PNAs) and FGDs that, 75% of the beneficiaries have increased their average incomes by at least 40%. In spite of these, results showed that the levels of provision of SCIs in Kubau and Makarfi LGAs were inadequate and there was low level of beneficiary’s participation in project identification and implementation.

4.1 Conclusion and Recommendations

Based on the findings of this study, there is evidence that provision of SCIs has significant impact on poverty reduction. The social and economic impact of NFDP III depends on the extent of provision and the uses of SCIs which in turn, can reduce the incidence of rural poverty. In the light of the above, the following recommendations may be worthy of consideration:

i. Higher levels of beneficiaries’ participation and community ownership should be promoted greatly; this can be achieved when project beneficiaries are empowered through capacity building; to identify community-owned project, have the capacity to develop LDPs as well as be able to manage the established SCIs;

ii. Sensitization campaign should also be made on effective use and maintenance of Community-owned and marketing infrastructures for greater impacts on poverty reduction;

iii. The monitoring, evaluation aspects of the project should focus much more on the value of project sustainability. This will over time, sustains the impacts of the project in the beneficiary communities, and

iv. Both the International funding agencies i.e. International Development Association (IDA) and the African Development Bank (AfDB) and the governments of Nigeria (federal, State and local) should show their continued commitments by designing an action plan that will significantly promote rural infrastructure for sustainable poverty reduction in Nigeria.
References


## APPENDIX I

### Table for Determining Sample Size from a Given Population

<table>
<thead>
<tr>
<th>( \bar{N} )</th>
<th>( S )</th>
<th>( \bar{N} )</th>
<th>( S )</th>
<th>( \bar{N} )</th>
<th>( S )</th>
</tr>
</thead>
<tbody>
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<td>10</td>
<td>220</td>
<td>140</td>
<td>1200</td>
<td>291</td>
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<td>14</td>
<td>230</td>
<td>144</td>
<td>1300</td>
<td>297</td>
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<tr>
<td>20</td>
<td>19</td>
<td>240</td>
<td>148</td>
<td>1400</td>
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<td>191</td>
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<tr>
<td>90</td>
<td>73</td>
<td>460</td>
<td>210</td>
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<td>95</td>
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<td>136</td>
<td>1100</td>
<td>285</td>
<td>100000</td>
<td>384</td>
</tr>
</tbody>
</table>

**Note:** \( \bar{N} \) is population size. \( S \) is sample size.

**Source:** Krejcie & Morgan, 1970
EFFECT OF RESERVES AND CREDITS OF DEPOSIT MONEY BANKS ON INFLATION IN NIGERIA

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Abstract
Factors that might affect inflation rate are numerous. These factors include money supply; government expenditure and borrowing; fiscal deficits; Gross Domestic Product (GDP) growth rate; supply of credits, reserve requirement ratio; liquidity ratio; interest rates; exchange rates; importation of goods and services as well as crude oil prices. This study investigates the effect of DMBs’ reserves and credits on inflation in Nigeria. The study adopts descriptive and ex post facto research design. This is because longitudinal secondary data is used for period ranging from 1983 to 2014. The population of study is 64 DMBs that includes both 45 defunct and 19 existing DMBs operating in Nigeria as at December, 2015. The regression results indicate that DMBs’ reserves have significant positive effect on inflation rate. But, DMBs’ credits have significant negative effect on inflation rate in Nigeria. This study recommends that CBN should discourage excess reserves by DMBs as deposits with the apex banks. This is because one percent increase in DMBs’ reserves will significantly increase the inflation rate by one percent. Also, DMBs supply of credits to the economy should be reduced or maintained. The reason is that one percent fall in DMBs’ credits supply to economy will significantly fall the inflation rate in Nigeria by one percent which better for the economy.

Keywords: Banks’ credits; Banks’ reserves; Deposits Money Banks; inflation and Nigeria

1. INTRODUCTION
Banks are one of the essential features of financial system that accept deposits, make payments and issue credits to customers in an economy. As the banks execute these primary roles and responsibilities they might cause inflation. Inflation is continuous and persistent rise in the general price level of goods and services in an economy for a given period of time.

One of the monetary policy objectives is to achieve stable inflation rate. Stable inflation rate is necessary because the rising and uncontrollable inflation rate hampers growth and development of an economy as it discourages savings and investment. There are five dimensions of inflation that include demand pull inflation, cost-push inflation, sectoral or demand shift inflation, structural inflation and mark up inflation (Jhingan, 2004) and Vaish, 2008). Inflation is very important to the extent that a single digit inflation rate is use as a prerequisite for joining the membership of Economic Community of West African States.
(ECOWAS) common currency zone (Oppong, Aburuquah, Agyeiwaa, Owusu, Quaye, & Ashalley, 2015).

In Nigeria, inflation rate was 10.8 percent in 2011 as against 12.2 percent, 8.5 percent and 8.1 percent in year 2012, 2013 and 2014 respectively (CBN, 2013 and World Bank Group, 2015). This inflation rate might be affected by DMBs reserves and credits. Reserve is special money saved by organizations to meet urgent cash needs. Basically, there are two types of banks reserves namely, regulatory and non regulatory reserve. Regulatory or mandatory reserve is the minimum cash reserve requirement ratio for banks stipulated in the banking supervision and regulatory law (BOFID, 1991 & CBN ACT, 2007). But, non regulatory reserve is money kept for emergency purposes. The main reasons banks are mandated to keep reserves with CBN are to maintain liquidity at any point of time; its increase can attract capital inflows than an increase in policy rates; it may strengthen the effectiveness of interest rate policy and it can be used to meet financial stability objectives of a nation (Montoro & Moreno, 2011 and Teja, Tejaswi, Madhavi & Ujwala, 2013). Bank credit on other hand is a promise by a customer (debtor) to pay a bank (lender) the money borrowed. The aggregate banks credits to economy are credits to government, credits to core private sectors and credits to other private sectors. Bank credit constitutes important and active stimuli to economic growth and development of a nation.

Besides DMBs’ reserves and credits, other variables that may affects inflation rate include money supply; government expenditure and borrowing; fiscal deficits; Gross Domestic Product (GDP) growth rate; liquidity ratio; interest rates; exchange rates; importation of goods and services as well as crude oil prices. These variables were used in different previous studies and nations. The results of the previous studies are inconclusive by diverse academic researchers. Prominent among the previous studies are Danjuma, Jbrin, and Blessing (2012) and Korkmaz (2015). The study by Danjuma et al. (2012) observed that cash reserve ratio of commercial banks has insignificant impact on inflation in Nigeria. However, the study fails to investigate DMBs’ domestic credits to economy as well as its effect on inflation. Also, Korkmaz (2015) discovered that banking sector domestic credits to economy has insignificant effect on inflation in selected European countries. But, the findings of the study cannot be generalized to other parts of the world. The gaps identified in the studies are variable gap, scope gap, modeling gap and findings gap.

The current study intends to fill the identified gaps by investigating problems in DMBs reserves and credits in relation to inflation rate. The problems are to observe how DMBs reserves and credits might affect inflation rate in Nigeria. Therefore, this study is conducted by adapting the work of Danjuma et al. (2012) and Korkmaz (2015) in the field of social sciences after slight modifications in their models. The modifications affect the variables and scope of the studies. The modifications makes this work unique and different from earlier studies. This study would be significant to policy makers like Central Bank of Nigeria (CBN) that controls DMBs’ reserves requirements and direct credit supply to some sectors of economy. The research questions arising are:

i. To what extent do DMBs reserves affect inflation in Nigeria?
ii. To what extent do DMBs credits influence inflation in Nigeria?

In order to answer the above research questions to solve the problems, the following objectives arise. The main objective of the study is to investigate the effects of reserves and credits by Deposit Money Banks (DMBs) on inflation in Nigeria. Specifically, the study intends to achieve the following objectives.

i. To examine the effect of DMBs’ reserves on inflation in Nigeria.
ii. To assess the effect of DMBs’ credits on inflation in Nigeria.
The above specific objectives are achieved through the following null hypotheses after testing.

H01: DMBs’ reserves have no significant effect on inflation in Nigeria.
H02: DMBs’ credits have no significant effect on inflation in Nigeria.

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1.1. Concepts and Measurements of Inflation Rate

Inflation is a process whereby monetary authorities increase the quantity of money in circulation. Inflation is also continuous and persistent rise in the prices of goods and services in a given period. Shah, Arshed and Jamal (2014) define inflation as a process in which the price index is rising and money is losing its values. Alpha and Pingfeng (2015) see inflation as a situation in which the general price level is rising persistently and the market value of money falling over a period of time. Lim and Sek (2015) opine that inflation is a continuous and persistent rise in the general price level and hence it leads to a fall in purchasing power. Alexander, Andow, Danpome (2015) view inflation as prolong and continuous rise in the general price level of goods and services or prolong and continuous fall in the value of money. Hence, this study operationally defines inflation as continuous and persistent rise in the general price level of goods and services leading to fall in value of Naira in Nigeria.

Measurement of inflation can be done using the consumer price index and producer price index. According to CBN (1991) in Bayo (2004), inflation can be measured using three approaches namely, Gross National Product (GNP), Consumer Price Index (CPI) and Wholesome Price Index (WPI) or Producer Price Index (PPI). The CPI and PPI are regarded as direct measures of inflation because of the period to period changes. But, Consumer Price Index (CPI) is the least efficient of the three approaches, yet it is used to measure inflation rate for the reason that data is easily available on monthly, quarterly and annual basis. Arif and Ali (2012), Shahet al.(2014), Alpha and Pingfeng (2015), Lim and Sek (2015) and Ayenagbo (2015) measured inflation using CPI. However, Oppong et al. (2015) weighed inflation utilizing growth rate of the CPI. This study measures inflation making use of 12 months moving average of Consumer Price Index (CPI). This is because it is used to measure inflation rate in Nigeria (CBN, 1991 in Bayo, 2004).

2.1.2. Concepts and Measurements of Reserves

Reserve is special money saved by organizations to meet urgent cash needs. It is also saving money for future use. Business Dictionary (2015) defines reserve as funds set aside or saved for future use. It further states that in accounting, reserve is part of retained earnings set aside for a specified purpose. In banking, reserve is funds set aside for day to day operation known as primary reserve or funds set aside to meet emergency liquidity requirement known as secondary reserve. Teja et al (2013) define cash reserve ratio as the percentage of funds that banks are to keep with an apex bank as mandated by the law. Amuda (2014) views reserve requirement of commercial banks as instrument used to maintain liquidity and influence credit operations. This study operationally defines reserve as money set aside or saved for regulatory and precautionary reasons.

Banks reserve is classified as regulatory (minimum required reserve requirements) and non regulatory reserve. Thus, the measurement of banks reserve can either be compulsory or voluntary. Dabale and Jagero (2013) and Teja et al. (2013) measured banks reserve using Required Reserve Ratio (RRR). Also, Nana and Samson (2014) weighed reserve utilizing liquid assets of banks. But, Onyeiwu (2012) gauge reserve using cash reserve ratio. This study measures banks reserve using DMBs’ reserves as deposits with Central Bank of Nigeria.
annum. This is because the reserves consist of voluntary and compulsory reserve requirement by CBN.

2.1.3. Concepts and Measurements of Credits

Bank credit is loan and advances given to a customer by a banker which may be pledged with collateral security. Interests are paid on the amount borrowed or lent in accordance with loan agreement between the customer and the banker. Spencer (1977) in Yakubu and Affoi (2014) opines that credit implies a promise by one party to pay another the money borrowed or goods and services received. Business Dictionary (2015a) defines loan as a written or oral agreement for a temporary transfer of a property (usually cash) from a banker (lender) to a customer (borrower) who promises to return it according to the terms of the agreement, usually with interest for its use. Hence, this study operationally defines bank credit as a promise by a customer (debtor) to pay a bank(lender) the money borrowed. The credit includes DMBs’ credits to governments, core private sectors, other private sectors and individuals.

The measurement of banks credit include credit to private sector, credit to government and aggregate banks credit to economy. Yakubu and Affoi (2014); Ayenagbo (2015) and Orji et al. (2015) weighed credit utilizing bank credits to private sector. Though, Korkmaz (2015) measured bank credit utilizing bank domestic credits to economy. Thus, this study measures bank credit using DMBs’ domestic credits to economy per annum. This is because the domestic credits to economy consist of credit to government and private sectors. The three variables of this study are conceptualized in figure 1.1 below.

Figure 1.1: Conceptualization of the Variables

| DMBs’ Reserves | DMBs’ Credits | Inflation Rate |

Source: (Researcher’s Illustration, 2016)

2.2. Empirical Studies Relating to Factors Affecting Inflation Rate

Proxies causing inflation differs from one nation to another. Glocker and Towbin (2012) examined reserve requirements for price and financial stability in France from 1960 to 2007. The results indicate that banks’ reserve requirements can support the price stability. Also, an increase in the banks’ reserve requirements allows in generating an exchange rate. However, the findings cannot be generalized because the study was conducted in France. Korkmaz (2015) investigated impact of bank credits on economic growth (GDP) and inflation in selected European countries from 2006 to 2012. The study used panel data and randomly selected 10 European countries like Spain, Finland, France, Germany, Greece, Hungary, Italy, Poland, Turkey and United Kingdom. The regression result reveals that banking sector domestic credits to economy has significant effect on GDP but banking sector credits to economy has insignificant effect on inflation. Nevertheless, the findings of this study cannot
be used for generalization even in European countries because Turkey is yet to be a member of European Union.

In Asia, Lim and Sek (2015) examined determinants of inflation from 1970 to 2011 in 28 countries in six continents of the world. The regression results indicate that GDP growth and imports of goods and services are significant determinants of inflation in the long run in low inflation countries. Results also indicate that money supply, national expenditure and GDP growth are the significant determinants of inflation in the long run in high inflation countries. The work contributes significantly to knowledge but it fails to include credit supply among the explanatory variables.

2.2. Empirical Studies Relating to Factors Affecting Inflation Rate

Arif and Ali (2012) investigated determinants of inflation from 1978 to 2010 in Bangladesh. The OLS regression results indicate that GDP, broad money, government expenditure, government revenue, import and export have significant effects on inflation in long run. On the other hand, money supply has significant effect on inflation in short run. However, the work failed to investigate bank credit and its effect on inflation. Shah et al. (2014) investigated factors affecting inflation from 1990 -2013 in Pakistan. The findings show that durable goods, electricity, import, natural gas, steel mills product, capital goods export, food import and government sector borrowing have significant effects on inflation in Pakistan. However, the study is limited to Pakistan and the findings cannot be generalised.

In Africa, Oppong et al. (2015) examined key determinants of inflation from 2000 to 2014 in Ghana. The OLS regression results findings reveal that crude oil price at the world market, exchange rate, and Electioneering Spillover Quaternary Effects (ESQE) are key significant determinants of inflation in Ghana. Here, the study only made use of quarterly data which may not reflect in long term studies. Alpha and Pingfeng (2015) studied determinants of inflation from 1990 to 2013 in Sierra Leone. The multiple regression results indicate that all the independent variables such as interest rate, money supply, GDP, exchange rate as well as import of goods and services have significant effects on inflation in the long run. A close look seems to reveal that the study is limited Sierra Leone. This follows that the study cannot be generalised as the economy as the economy structure of countries differ.

In Nigeria, Bakare (2011) empirically studied determinants of money supply growth and its effects on inflation rate from 1983 to 2006 in Nigeria. The results show that credit expansion to the private sector determines money supply growth. Also, money supply has significant effect on inflation and significant relationship with inflation. However, the data for study is 11 years behind the current year 2016 and the findings may not be useful again. Danjuma et al. (2012) assessed the impact of monetary policy on inflation from 1980 to 2010 in Nigeria. The result shows that interest rate and liquidity ratio have significant impact on inflation while cash reserve ratio of commercial banks, broad money supply and exchange rate have insignificant impact on inflation. However, the study fails to investigate DMBs’ domestic credits to economy and its effect on inflation. Iyaji, Success1, and Success2(2012) examined the effectiveness of monetary policy in combating inflation from 1980 to 2010 in Nigeria. The result shows that interest rate and liquidity ratio have significant effects on inflation while cash reserve ratio of commercial banks, broad money supply and exchange rate have insignificant effects on inflation in Nigeria. The finding of the study gives insight of effect of DMBs’ cash reserve ratio on inflation but neglected the effect of bank credits on inflation.

In addition, Akinbobola (2012) investigated the dynamics of money supply, exchange rate and inflation from 1986 to 2008 in Nigeria. The estimation result shows that increase in money supply will lead to significant increase in inflation rate in short run but an
insignificant effect in the long run. Real output has an inverse significant effect on inflation while exchange rate is no significant factor influencing inflation in Nigeria. The defect of this study is that data used are 9 years behind current year 2016. Alexander Andow and Danpome (2015) analysed the main determinants of inflation from 1986 to 2011 in Nigeria. The regression results show that fiscal deficits, exchange rate, import of goods and services, money supply and agricultural output have a long run influences on inflation while lending rate has short and long run influence on inflation in Nigeria. Despite its achievement, the study fails to indicate how inflation is measured and the findings are not significant.

From the discussions so far, the studies in other countries like France, Bangladesh, Pakistan, Ghana and Sierra Leone are not applicable to Nigeria and the variables used are not the combination of banks’ reserves and credits concurrently. Even many studies in Nigeria do not make use of bank reserves and credits in the same work as variables affecting inflation rate. Thus, this study is unique and intends to contribute to knowledge by examining the effects of reserves and credits on the inflation rate in Nigeria.

2.3.1. Theory of Inflation

The theories of inflation are discussed in five dimensions that include demand pull inflation, cost-push inflation, sectoral or demand shift inflation, structural inflation and mark up inflation (Jhingan, 2004) and Vaish, 2008). The demand pull inflation is explained by two principal theories namely, monetarists or monetary demand pull theory of inflation and Keynesians or Keynes’ theory of demand-pull inflation. The monetary demand pull theory of inflation states that when the aggregate demand for goods and services is greater than the aggregate supply of money it is the principal cause of demand pull inflation. But, Keynes’ theory of demand-pull inflation states that when the value of aggregate demand for goods and services (For consumption, investment and government expenditure) exceeds the value of aggregate supply of money at the full or near employment level, the inflationary gap arises. That is the larger the gap between aggregate demand and supply, the more rapid the inflation.

Cost-push inflation theory states that inflation arises from upward pressure of production costs. In other words, the theory explains that the higher the cost of production (particularly wages), the higher the prices of commodities produced which cause inflation. The cost-push inflation is criticized because it is associated with unemployment to control inflation. Sectoral or demand shift inflation theory point out that price increase were caused by neither demand-pull nor cost-push inflation but sectoral shift in demand. That is, excess demand in a particular industry of material, supplies and components will raise the prices. The theory is weak because it fails to investigate the monetary precondition for inflation.

Structural inflation theory states that the long-run inflationary trend in developing nations (Nigeria, Indonesia, Argentina, Brazil, etc) is as a result of structural rigidities, market imperfection and social tensions in those nations. The structuralists opines that inflation is necessary for growth. As such, the economy develops, rigidities arise which lead to structural inflation. The theory is criticized because no separation is made between autonomous structural rigidities and induced rigidity from prices and exchange control.

Mark up inflation theory states that inflation is as a result of the practice of the America Business Corporation to compute costs and then add to those costs certain mark up to yield a target return on invested capital. The theory assumes that both wages and prices are administered and settled by workers and business firms. Firms fix administrative prices for their goods by adding to direct material and labour costs some standard mark up which cover profit. Labour also seeks for wages on the basis of a fixed mark up over its cost of living. However, the theory is criticized for not giving sufficient explanation on the causes of inflation and ones inflation starts it continues indefinitely. Therefore, demand pull inflation, cost push inflation and demand shift inflation theory underpinned inflation rate as dependent
variable in this research model obtainable in the methodology. This is because inflation is sometimes caused by monetary authorities that increase the supply of money leading to increase in prices of goods and services, wages and other production factors in an economy.

2.3.3. Theory of Reserves

Bank reserve is a special savings that may not earn interest or commission. The theory of reserve is linked to Friedman’s permanent income theory that explains the relationship between income, consumption and savings. According to Nwankwo, Ewuim and Asoya (2013), Friedman’s permanent income theorem is based on the transitory and permanent income. The transitory income (windfall income) is a temporary income which change leads to an increase in savings rather than consumption while the permanent income is the income the bank or household feels sure of getting. The permanent income increases the household’s or bank consumption without changing in its savings level and can even decrease the savings level. Thus, Friedman’s permanent income theory underpinned reserve as an independent variable of this study. This is because banks save money as compulsory or statutory reserve known as minimum Reserve Requirement Ratio with CBN. Also, DMBs can decrease or increase their statutory reserve with CBN when the need arises. The increase in statutory reserve is referred to as banks excess reserve which is over and above what the law stipulated.

2.3.3. Loanable Funds Theory

The loanable funds theory is also the credit theory that explains funds available for borrowing in relationship to interest. According to Vaish (2008), the demand for the loanable funds comes from governments, businessmen and consumers for the purposes of investment, hoarding and consumption. The government borrows funds for constructing public works or for war preparation. The businessmen borrow funds for the purchase of capital goods and for starting new investment projects. The consumers borrow funds for the purchase of durable goods like automobiles and houses. These borrowings are interest elastic. But supply of the loanable funds comes from savings, dishoarding and bank credit. Private individuals and corporate organizations are the main source of savings. If the interest rate is high, it will act as a deterrent to borrowing and thus encourage savings. Therefore, the loanable funds theory also underpinned bank credit as an independent variable of this study.

3. METHODOLOGY

This study adopts descriptive and ex post facto research design. This is because the study tries to explain the link among the variables using longitudinal secondary data over a period of time. The secondary data of Deposit Money Banks (DMBs) were extracted from Central Bank Nigeria (CBN) Annual Reports and Statistical Bulletins. The population of study is 64 DMBs that includes both 45 defunct and 19 existing DMBs operating in Nigeria as at December, 2015 (NigeriaGalleria, 2015; CBN, 2015 and NDIC, 2016). Since the entire population is studied through the collection of secondary data from 1983 to 2014, no sampling technique and sample size formula are required.

This study makes use of Ordinary Least Square (OLS) multiple regression models. In this multiple regression model, the dependent variable is inflation while the independent variables are DMBs’ reserves and credits. These proxies are chosen because similar studies indicated how these explanatory variables affects inflation rate in many nations and some of the results are not significant. Thus, this study adapts analytical framework and model of Danjuma et al. (2012) and Korkmaz (2015) in order to test the effects existing between reserves, credits and inflation rate in Nigeria.
INFRATE = α + β_1RESERVES + β_2CREDITS + e_i

This model 1 is transformed into model 2 below using inverse formula. This is because the data of variables are not normally distributed and failed to meet basic OLS regression assumptions after diagnostic testing (see descriptive statistics in appendix). The mathematical formulas used in transforming data of a variable include Square (x^2); Cube (x^3); Square Root (SQRT); Natural Logarithm (Ln); Logarithm (Log_{10}); reciprocal or Inverse (data of new variable = 1/data of old variable); Reflect and Square Root; Reflect and Logarithm; Reflect and Inverse etc (DeCoster, 2001; Pallant, 2001 and Hair, Black, Babin & Anderson, 2014). It is important to note that Danjuma et al. (2012) made use of inverse data of inflation rate and the explanatory variables in their work.

InvINFRATE = α + β_1InvRESERVES + β_2InvCREDITS + e_i

Where:
InvINFRATE = Inverse of average inflation rate per annum or 12 months moving average of CPI. Arif and Ali (2012); Shah et al. (2014); Alpha and Pingfeng (2015); Lim and Sek (2015) and Ayenagbo (2015) measured inflation rate using CPI. But, Oppong et al. (2015) weighed inflation rate utilizing growth rate of CPI.
InvRESERVES = Inverse of DMBs’ reserves as deposit with CBN per annum. Nana and Samson (2014) weighed reserve using liquid assets of banks.
InvCREDITS = Inverse of DMBs’ domestic credits to economy per annum. These credits are loans and advances to governments, private sectors and individuals. Korkmaz (2015) measured bank credit utilizing bank domestic credits to economy.

α = Constant or interceptor
β_1 & β_2 = Regression Coefficients
e_i = Error term.

The data collected on the variables were inputted and processed in Statistical Package for Social Sciences version 20. The outputs inform of correlation and regression results are analysed and hypotheses tested to draw the conclusions. Correlation tests the degree of association (-1 ≤ r ≤ 1) between independents variables on the dependent variable. But, regression tests the effects of independents variables on the dependent variable (see appendix)

The hypotheses of this study are tested at 1% and 5% significance level. Therefore, the study rejects the null hypotheses if the results are 1% (0.000 – 0.005) and 5% (0.006 – 0.050) significant. Otherwise, the study fails to reject the null hypotheses because no sufficient reasons for rejection.

4. RESULTS AND DISCUSSIONS
4.1.Results of the Null Hypotheses Testing

Table 4.1 presents summary information concerning the effects of DMBs’ reserves and credits on inflation rate.
Table 4.1. Summary of Regression Results between the Predictors and Inflation Rate

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Estimated (β) Coefficients</th>
<th>Standard Error</th>
<th>t-value</th>
<th>Sig.</th>
<th>Collinearity</th>
<th>Statistics</th>
</tr>
</thead>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Tolerance</td>
<td>VIF</td>
</tr>
<tr>
<td>Constant</td>
<td>0.093</td>
<td>0.010</td>
<td>9.678</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DMBs Reserves</td>
<td>85.982**</td>
<td>23.237</td>
<td>3.700</td>
<td>0.001</td>
<td>0.222</td>
<td>4.507</td>
</tr>
<tr>
<td>DMBs Credits</td>
<td>-1955.216</td>
<td>578.922</td>
<td>-3.377</td>
<td>0.002</td>
<td>0.222</td>
<td>4.507</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dependent variable: Inflation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significance Level: 1% (**), 5% (*)</td>
</tr>
</tbody>
</table>

Source:SPSS Multiple Regression Output, 2016.

The multiple linear regression output explaining the effects of two independent variables (reserves and credits) on inflation rate is expressed in the equation form below. Inflation Rate =0.093 + 85.982 * RESERVES - 1955.216 * CREDITS.

Table 4.1 shows outcome of regression results between the predictors and inflation rate with constant β value of 0.093 and standard error of 0.010. DMBs’ reserves has positive coefficient β value of 85.982, standard error of 23.237, t-value of 3.700 and significance level of 0.001 (1%). Thus, DMBs’ reserves has significant positive effect on inflation rate and the hypothesis one (Ho₁) is rejected. This discloses that DMBs’ reserves will significantly rise with inflation rate.

However, DMBs’ credits has negative coefficient β value of -1955.216, standard error of 578.922, t-value of -3.377 and significance level of 0.004. Therefore, DMBs’ credits has significant negative effect on inflation rate and the hypothesis two (Ho₂) is also rejected. This means DMBs’ credits will significantly rise with inflation rate.

The result also shows that both tolerance and VIF values for the explanatory variables have met the satisfactory conditions for non collinearity or multicollinearity. Tolerance value is above 0.1 and VIF is below 10 (Pallant, 2001). This implies that there is absence of multicollinearity amongst the variables.

In diagnose test of the model, the values of R, R² and adjusted R² are 0.567, 0.322 and 0.275 respectively. The R value is the coefficient of correlation that explains the relationship between the dependent and independent variables which is a strong positive relationship. In addition, the R² value is coefficient of determination that indicates that 32.20 percent of the variation in the dependent variable (inflation rate) is explained by the independent variables of the model. The value of R² is moderate because a value of R² below 0.2 is considered weak; a value of R² between 0.2 and 0.4 is moderate; and a value R² above 0.4 is strong.
(SSRL, 2010). On the other hand, the adjusted $R^2$ statistic corrects the $R^2$ value to provide a better estimate of the true population. If you have a small sample you may wish to consider reporting adjusted $R^2$ that is better than normal $R^2$ value (Pallant, 2001). The standard error of the estimates shows the standard deviation of the residuals to be 0.044 suggesting homoscedasticity.

The F statistic value (P- value) is 6.875 with significance level of 0.004 (1%). If the significance of F statistic value is less than 0.005 ($p < 0.005$) it means independent variable contributes to the prediction of the dependent variable (Pallant, 2001). Also, $p –$ value in the ANOVA is significance at 0.004. This indicates absence of committing type I error at 95% confidence interval.

The Durbin Watson (DW) value is 1.5 which is an evidence of little positive serial correlation (autocorrelation) since the value is 1.5. Normally, the values of DW statistics lie between 0.0 and 4.0. A value of DW exactly 2.0 suggests perfect serial correlation (zero autocorrelation) but a value close to 2.0 [i.e. from 1.5 to 1.9 and from 2.1 to 2.5] suggests little positive and negative serial correlation (autocorrelation). Also, a value between 0.0 and 1.5 suggests strong positive autocorrelation. But, a value between 2.5 and 4.0 suggests strong negative autocorrelation in the time series data. As rule of thumb, little positive or negative autocorrelation is suggested because it is difficult to get DW value of exactly 2.0 in social science research involving the use of secondary data (ISS, 2009; Energy Center, 2014 and Pedroso, Silva-Mann Camargo & Russo, 2014). SAS Institute (2016) observes that autocorrelation is a problem in time series data because the ordinary regression residuals are usually correlated over time.

### 4.4 Results and Discussions

The summary results of the hypotheses testing are presented in table 4.2 and the discussion of findings follows. The results obtained in this study concur and disagree with some of the findings of earlier studies.

<table>
<thead>
<tr>
<th>Null Hypotheses</th>
<th>Results of the Hypotheses Testing</th>
<th>Decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_0_1$</td>
<td>DMBs’ reserves have significant positive effect on inflation rate in Nigeria.</td>
<td>Rejected</td>
</tr>
<tr>
<td>$H_0_2$</td>
<td>DMBs’ credits have significant negative effect on inflation rate in Nigeria.</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

**Source:** SPSS Multiple Regression Output, 2016

The summary results of multiple linear regression in table 4.2 shows the effects of the explanatory variables on the response variable. DMBs’ reserves have significant positive effect on inflation rate and the hypothesis one ($H_0_1$) is rejected. This implies one percent increase in DMBs’ reserves will significantly increase the inflation rate of Nigeria. The result is different from the finding of Danjuma *et al.* (2012), Iyaji *et al.* (2012) and Glocker and Towbin (2012) that observed cash reserve ratio of commercial banks and broad money supply have insignificant effect on inflation in Nigeria. Also, DMBs’ credits have significant negative effect on inflation rate and the hypothesis two ($H_0_2$) is rejected. This means one percent decline in DMBs’ credits will significantly decline inflation rate in Nigeria. The result is different from the findings of Korkmaz (2015) that revealed banking sector domestic credits to economy has insignificant effect on inflation.
From the discussions, the results of this study are novel and theoretically contribute to the existing literatures of social science research. This is because DMBs’ reserves and credits have significant effects on inflation rate.

5. CONCLUSION AND RECOMMENDATION

Inflation is vital macroeconomic factor that is use to determine the performance of an economy. The factors that significantly affect inflation rate are DMBs’ reserves and credits. The Central Bank of Nigeria (CBN) through managements of Deposit Money Banks must formulate policies that will guarantee stable inflation rate. This is done by directing DMBs’ not to keep excess reserves requirements as deposits with the apex bank and decrease the supply of credits to economy. The reasons are that DMBs’ reserves have significant positive effect on inflation rate while DMBs’ credits have significant negative effect on inflation rate in Nigeria.

Therefore, this study recommends that CBN should discourage excess reserves by DMBs as deposits with apex banks. This is because one percent increase in DMBs’ reserves will significantly increase inflation rate by one percent. Also, DMBs supply of credits to the economy should be reduced or maintained. The reason is that one percent fall in DMBs’ credits supply to economy will significantly fall inflation rate in Nigeria by one percent which is better for the economy.
REFERENCES


### APPENDIX

#### Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statistic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Inflation Rate (%)</strong></td>
<td>32</td>
<td>67.40</td>
<td>5.40</td>
<td>72.80</td>
<td>20.1625</td>
<td>17.75912</td>
<td>1.567</td>
<td>1.631</td>
</tr>
<tr>
<td><strong>DMBs Reserves (₦‘M)</strong></td>
<td>32</td>
<td>33630159.90</td>
<td>33630500.00</td>
<td>5915945.1472</td>
<td>314835.9531</td>
<td>1.631</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DMBs Credits (₦‘M)</strong></td>
<td>32</td>
<td>11464080.00</td>
<td>11475180.00</td>
<td>3536977.6646</td>
<td>5600</td>
<td>31.549</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Valid N (listwise)</strong></td>
<td>32</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

#### Correlations of transformed Data

<table>
<thead>
<tr>
<th></th>
<th>Inflation Rate</th>
<th>DMBs Reserves</th>
<th>DMBs Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.234</td>
<td>-.037</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>32</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.234</td>
<td>1</td>
<td>.882**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.197</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>32</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.037</td>
<td>.882**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.842</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>32</td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

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

#### Model Summary of transformed Data

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R Square Change</td>
<td>F Change</td>
</tr>
<tr>
<td>1</td>
<td>.567*</td>
<td>.322</td>
<td>.275</td>
<td>.04354</td>
<td>.322</td>
<td>6.875</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a. Predictors: (Constant), DMBs Credits, DMBs Reserves

b. Dependent Variable: Inflation Rate
### ANOVA of Transformed Data

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
</table>
| Regression| .026           | 2  | .013        | 6.875 | .004  
| Residual  | .055           | 29 | .002        |      |      |
| Total     | .081           | 31 |             |      |      |

a. Dependent Variable: Inflation Rate  
b. Predictors: (Constant), DMBs Credits, DMBs Reserves

### Coefficients of Transformed Data

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>95.0% Confidence Interval for B</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Lower Bound</td>
<td>Upper Bound</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.093</td>
<td>.010</td>
<td></td>
<td>.000</td>
<td>.073</td>
<td>.112</td>
</tr>
<tr>
<td>1 DMBs Reserves</td>
<td>85.982</td>
<td>23.237</td>
<td>1.201</td>
<td>.001</td>
<td>38.458</td>
<td>133.507</td>
</tr>
<tr>
<td>DMBs Credits</td>
<td>-1955.216</td>
<td>578.922</td>
<td>-1.097</td>
<td>.002</td>
<td>-3139.244</td>
<td>-771.188</td>
</tr>
</tbody>
</table>
THE INFLUENCE OF VISION AND DIMENSION OF ENTREPRENEURIAL ORIENTATION ON PERFORMANCE OF SMES IN KANO, NIGERIA

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Abstract
The influence of vision and dimension of entrepreneurial orientation on Small and Medium Sized Enterprises (SMEs) performance becomes an area of concern globally. SMEs and their contributions in the development process have continuously been in a frontline of policy debate in developing countries. Therefore, this study aim to analyse the influence of vision, innovation, proactiveness and risk-taking on SMEs performance in Kano, Nigeria. Descriptive survey research design was used in the study. Structural equation modelling (SEM) was employed for data analysis. The findings of the research show that there is positive and highly significant impact of vision on SMEs performance, positive and significant impact of innovation on SMEs performance. Lastly, the results also indicate negative and highly significant impact of risk-taking on SMEs performance. The study pinpoints that for SMEs organization to succeed they must have a clear vision, innovative capacity and ability to take and manage risk. In conclusion, the study recommends to the policy makers that seek the growth of SMEs to develop programs that can train SMEs operators on the important of setting vision, being innovative and how to take and manage risk.

Key Terms: Vision, Innovation, Proactiveness, Risk-taking and SME Performance

1.1 Introduction
Small and medium-sized enterprises (SMEs) play significant roles in the world economy and contribute substantially to income, output and employment. According to Ayyagari et al., (2011) reported that in the World Bank survey of 47, 745 businesses in 99 countries revealed that firms that have between 5 to 250 employees accounted for 67% of the total permanent/full-time employment. However, Vandenberg, (2006) affirmed that SMEs contributed to poverty reduction and engaged in international business both in term of export and import. Global Alliance of SMEs, (2013) reported that the proportion of SMEs vis-a-vis the total number of enterprises are more than 95%, they provide over 50% of jobs in developed countries, like U.S, UK, Germany and contribute to their Gross Domestic Product (GDP) for more than 50%. In the emerging economies such as Malaysia, Hong Kong, Philippines etc, more than 90% of their business establishments are SME and they provide
over 55% of total employment (Jasra, et al., 2011). In African countries; Ghana’s SME account for 70% of GDP and 92% of its businesses. They also make up to 91% of formalised businesses in South Africa and 70% of manufacturing sector in Nigeria (Gatt, 2012). Moreover, Henderson, (2002) stated that SMEs connect the community to the larger global economy. Thurik and Wennekers (2004) assert that SMEs are the vital link to the economic development of any nation. They serve as a source of innovation, technological growth, and creation of new job (Wiklund et al., 2009). It is apparent that SMEs are the main movers of economic growth and development. In the Nigerian economy SMEs have a growing potential and like other economies are likely to constitute a significant portion of GDP in the near future, as such SMEs are crucial part of the Nigerian economy (Oyelaran-Oyeyinka, 2007).

Despite the contribution of SME to the global economy and its roles to the Nigeria economy in particular, certain organisational variables are the key ingredients for the success and effective performance of SME. They consist of vision, innovation, proactiveness and risk taking. Entrepreneurial variables and leadership element are the key success factors for positive organisational performance as proclaimed by many researchers. Peters and Waterman, (1982) have argued that entrepreneurship is an integral part of high-performing firms. Obiwuru Timothy et al., (2011) asserted that leadership behaviour has positive relationship with performance of SME. Furthermore, study has emerged that link the core characteristics of entrepreneurship with characteristics of leadership in a new area called entrepreneurial leadership. According to Fernald et al. (2005); Cogliser and Birham (2004) the characteristics that connect entrepreneurs and leaders includes vision, problem solving, decision-making, risk taking, strategic initiatives, innovation and influence. Furthermore, EL-Annan, (2013) posits that innovation, proactiveness and vision are the characteristics that link entrepreneurs and leaders. While Fernald et al., (2005) found that risk taking is among the variables that connect leadership and entrepreneurship. Therefore, this research will seek to examine the influence of vision, innovation, proactiveness and risk-taking on SMEs’ performance in Kano, Nigeria.

1.2 Problem Statement

In 2008, Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) reported that SMEs in Nigeria usually collapse before their fifth anniversary. Onugu (2005) and Nwanko et al., (2012) have identified some of the remote causes of poor performance of SMEs in Nigeria. They include insufficient capital, lack of focus, poor market research, concentration in some few markets for finished products, rare succession plan, inexperience, poor record system, lack of entrepreneurial spirit, etc. These problems consist of entrepreneurial as well as visionary challenges. Thus, vision and entrepreneurial dimensions may serve as impetus for effective SMEs performance.

In the recent times, Nigerian government and various agencies have set aside financial resources to revamp SMEs activities in Nigeria. For example the Small and Medium Enterprises Equity Investment Scheme (SMEEIS) was the scheme set aside by government which make mandatory instruction to commercial bank to set 10% of their profit after tax for microfinance loan to SMEs, the cumulative sum was ₦42, billion as at December, 2009. However, the scheme did not achieve the desired impact as most of SMEs were not interested in the equity participation for fear of losing control of their enterprises (SMEDAN/NBS, 2012). Furthermore, in 2010, ₦200 billion was set up by the government through Bank of Industry (BOI) to developed SMEs sector particularly those in the manufacturing sector. Similarly another ₦200 billion was set aside by the government to finance SMEs in Nigeria to every sector of the economy under Small and Medium Scale Enterprises Guarantee Scheme (SMSEGS). However, the ₦100 billion Cotton, Textile and Garment (CTG) Fund was also part of the scheme to revitalised textiles industry; the money was also managed by...
the government through BOI. Other financings include; the ₦2 billion National Economic Reconstruction Fund (NERFUND) and the ₦5 billion Dangote Fund for MSMEs (SMEDAN/NBS 2012). The government and other agencies have made an effort toward reinvigorate SMEs by paying attention to financial aspect. Ademola and Micheal, (2012) reported that despite efforts by government to bolster SMEs, 78% of businesses cripple within the first twelve months, only 22% make it up to a period of ten years. The government and donor agencies are heavily concern about financial problems without given due consideration to the importance of setting vision and dimensions entrepreneurship. In view of these problems, this research will focus on the influence of vision, innovation, proactiveness and risk-taking on SMEs` performance in Kano, Nigeria.

1.3 Objectives of the Study
The study seeks to examine the influence of vision, innovation, pro-activeness and risk-taking on SMEs` performance in Kano, Nigeria. The following are the specific objectives of the study
1. To examine the extent to which vision affect SMEs` performance in Kano, Nigeria.
2. To determine the degree to which innovation affect SMEs` performance in Kano, Nigeria.
3. To investigate the extent to which pro-activeness affect SMEs` performance in Kano, Nigeria.
4. To find out the degree to which risk-taking affect SMEs` performance in Kano, Nigeria.

2.0 LITERATURE REVIEW:
2.1 Theoretical Background
The Resource-Based-view (RBV) advocates that the resources owned by an organisation are the core players of its performance, and they contribute hugely to a sustainable competitive advantage of any organisation including SMEs. According to Barney, (1991); Grant, (1991) the concept of resources consist of all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. SMEs are been considered and recognised by the previous researches as panacea to economic growth (Thurik and Wennekers 2004; Wiklund et al. 2009). One of the most important concerns of the researchers is the factors responsible for the effective performance of SMEs. The theory that emphasized on firm competitiveness in other word organisational performance is RBV; it advocates that organisational resources and capabilities are the sources for competitive advantage, a source of firm profitability (Grant, 1991). However, RBV acknowledged that certain circumstances sustained competitive advantages through leveraging on a firm`s resources. The resources can be broadly categorised into two tangible and intangible (Grant, 1991). In this paper, the RBV would be used to guide it. However, most of the previous researches on performance have used RBV to guide their study and the concept of vision, innovation, risk-taking and pro-activeness are related to strategic aspect of the organisation which are quite intangible in nature. According to Morgan and Strong (2003), analysis, defensiveness, futurity, pro-activeness, aggressiveness and risk-taking, are the strategic orientation of organisation and they may be used to attained superior business performance. However, entrepreneurial strategies and entrepreneurial abilities are part of the crucial sources of the competitive advantage of a firm (Akio, 2005). The characteristics that connect leadership and entrepreneurship will be used to examine the influence of vision and dimensions of entrepreneurial orientation on SMEs performance in Kano, Nigeria. These characteristics are quite intangible but according to the previous researches are very important to the success of any organisation.
2.2 Concept of Entrepreneurship

Entrepreneurship is a multidimensional concept which has different connotation; it is the process of coming up with new products, services, or production processes, strategies and new markets for products and inputs that were not in existence (Shane and Venkataraman, 2000). In this definition, introducing new idea on product, process, and organisational strategies and forming of a new market is term entrepreneurship. It is about a new discovery and exploitation of new opportunities. Entrepreneurship is innovative activity. It is the ability to create and build something from practically nothing. It is a process of creating and exploiting new economic activities usually through the formation of new organisation (Reynolds, 2005). The activities of developing a niche in the market or developing strategies to satisfy some needs are called entrepreneurship (Garfield 1986). The term has been used to delineate a wide range of activities such as creation, founding, adapting and managing a business enterprise (Cunningham and Lischeron 1991). It is concern with sensing opportunity where other seen chaos, contradiction and confusion (Kuratko, 2007). Entrepreneurial firm is the one with strong commitment to product and technological innovation, taking risk, and proactive (Miller, 1983). The essential act of entrepreneurship is about new entry and new entry can be accomplished by entering either new or established markets with new or existing goods or services (Lumpkin and Dess 1996). Entrepreneurship affects all organizations regardless of size and age, whether they are considered as private or public entities, it is an action taking by entrepreneur to establish business enterprise, it is behaviour and attitude of mind to seek opportunities, take calculated risks and derived benefits by setting up a business venture. It consists of numerous activities such as conception, creation and running of an enterprise (Cuervo et al, 2007).

Therefore, what really influences entrepreneurship is entrepreneurial orientation (EO). Lumpkin and Dess, (1996) is if the view that new entry is the central concept surrounding the entrepreneurship but EO has significant effect on new entry. An EO refers to the processes, practices, and decision-making activities that lead to new entry (Lumpkin and Dess, 1996). The key dimensions that characterized EO include a propensity to act autonomously, a willingness to innovate and take risks, and a tendency to be aggressive toward competitors and proactive relative to market opportunities (Lumpkin and Dess, 1996). All of these factors; autonomy, innovativeness, risk taking, pro-activeness, and competitive aggressiveness may be present when a firm engages in new entry (Lumpkin and Dess, 1996).

2.3 Concept of Leadership (Vision)

Leadership centrally involves a relationship of mutual commitment between a leader and group of followers in pursuit of a collective goal (Gupta et al, 2004). Like EO, leadership is related to organisational activities; it is concerned with performance and outcome of an organisation. As argued by Kotter (1990) leadership is more of giving a clear direction, aligning people, motivating and inspiring others. Fry (2003) explains that leadership is to offer inspiring motive and to enhance the staff’s potential for growth and development. It concerned with long-term outcomes and future goals of the organizations (Gupta et al, 2004). By definition, leadership is the individual behaviour that guides a group to achieve the common target (Stogdill and Coons, 1957). The most formidable character of a leader is to set a vision for the organisation that is what is known as transformational enactment as proposed by Gupta et al, (2004) in their article “Developing entrepreneurial leadership construct”. According Fernald, et al (2005); EL-Annan (2013) vision is one of the characteristics that link entrepreneurship and leadership.

Vision is a statement that directs the conduct of the organisation; it is about planning the course of action that can be attained in the future (Rossouw et al., 2003). A vision is
formulated by explicitly identifying a domain for competitive behaviour, and source of competitive strength, and a profile for resource capability. Yukl, (1998) asserted that a clear vision of what an organization could accomplish or become helps employees to understand the purpose, objectives, and priorities in the organization. Therefore leaders and successful entrepreneurs influence other people through clear vision and goal as such vision is an important element that connects leadership and successful entrepreneurship (Fernald et al, 2005).

2.4 Concept of SMEs

It is agreed by many researches that SMEs are the cornerstone for economic growth and social development. Both developed and developing countries have benefited from the roles of SMEs especially on poverty reduction and employment generation (Jastra et al 2011 and Kadir 2012). Lawal and Ijaiya, (2007) reported that SMEs have improved living standard of the rural dwellers through job creation, utilization of local technology, and generation of revenue to both private individuals and governments. Despite, the contribution of SMEs to economic growth and development, SMEs has no single unanimous definition. Different definitions were given by different agencies. For example, World Bank defines SME as enterprise which have the maximum annual turnover of fifteen million U.S Dollar and asset size not exceeding fifteen million U.S Dollar with maximum number of three hundred employees. Similarly Multilateral Investment Fund (MIF) of the International American Development Bank (IADB) defines SME as enterprise with maximum annual turnover of three million U.S Dollar and maximum number of one hundred employees. While African Development Bank and United Nation Development Programme (ADB and UNDP) define SME in term of number of employees- ADB sees SME as enterprise with maximum number of fifty employees and UNDP considered two hundred employees (Gibson and Vandervart, 2008). In Nigeria, Small and Medium Enterprises Development Association of Nigeria (SMEDAN) and National Bureau of Statistics (NBS), (2012) define Small enterprise as enterprise with total assets (excluding land and building) above five million Naira but not exceeding fifty million Naira with total workforce of above ten but not exceeding forty nine and Medium Enterprise as one with total assets (excluding land and buildings) above fifty million Naira but not exceeding five hundred million with workforce between fifty and one hundred and ninety nine employees. Furthermore, Central Bank of Nigeria (CBN) defines SMEs in Micro Small and Medium Enterprises Development Fund (MSMEDF) revised guidelines (2014) as entities which have assets based of Five Million Naira and not more than five hundred Million Naira with number of employees from 11 to 200. Thus, SMEs has been defined in term of turnover, assets size and number of employees. But virtually all the definitions have given emphasis on number of employees this signifies that SMEs are panacea for unemployment and poverty alleviation.

2.5 SMEs Performance

Performance is a multidimensional phenomenon; it is about creating acceptable outcome and action (Morgan and Strong, 2003; Chittithaworn et al., 2011). Controversy exists in describing and understanding the term business performance (Morgan and Strong, 2003). Performance seems to be conceptualised and measured in different ways (Venkatraman and Ramanujam, 1986; Olabisi et al.,2011). According to conventional approach to performance, performance can be assessed by emphasizing on profitability usually measured by return on investment (Reese and Cool, 1978) even though other scholars have criticized profitability as basis for measuring performance (Morgan and Strong, 2003). Kaplan and Norton (1996), have gave more generic view about business performance that
there is a need to integrate accounting based issues and other performance indicators that are off the balance sheet to measure performance. Market based performance is what usually lead to financial performance (Murphy et al., 1996). In this research, SME performance consists of financial and non-financial measures including the annual sales growth, annual profits growth, annual employee growth, customer satisfaction, market share, and investment to the business as used by Morgan and Strong, (2003); Kantabutra, and Avery (2010); Kraiser et al., (2013) Wejunge and Pushkumari, (2014) and Sandada, (2014).

2.6 Empirical Framework

Previous studies have generally established a positive relationship between aggregated measures of entrepreneurial orientation (EO) and firm performance and many scholars have argued that EO is one of the salient factors which contribute to the performance of SMEs (Kraiser et al, 2013 and Wijetunge and Pushpakumari, 2014). However, there are theoretical reasons suggesting that three dimensions of EO (innovativeness, pro-activeness, and risk-taking) may possess differential relationships with performance in small firms (Kreiser et al, 2013). On the contrary, Sandada, (2014) found that, the mission and vision statements; environmental scanning and the formality of strategic planning have positive effect on the performance of SMEs. Vision, innovation, pro-activeness and risk-taking are the characteristics that connect entrepreneurship and leadership; they are set of traits that are indispensable toward effective performance of an organisation (EL-Annan, 2013). Thus, vision, innovation, pro-activeness and risk-taking will be reviewed individually to see how they are related to performance.

2.6.1. Vision and SMEs Performance

In order for the SMEs to perform credibly, SME owners and managers need to identify antecedents of business performance; vision is one of those antecedents (Sandada, 2014). Vision is a strategic process within organisations (David, 2003), it indicates the state of the business in the future (Rossouw et al. 2003), and it signifies the guiding philosophy and what give clear direction to the organisation (Finkelstein et al., 2007 and Kantabutra and Avery, 2010). It is a business ideology that must be shared and desire everyone’s commitment (Ungerer et al., 2007). According to Yukl, (1998), stated that clear vision of what an organization could accomplish or become helps employees understand the purpose, objectives, and priorities in the organization, as many studies have shown the relationship between vision and performance.

A study of the power of vision in apparel stores by Kantabutra and Avery (2010), found that vision characteristics and content have positive and direct effects on customer, staff satisfaction, and business performance. The study was conducted in Sydney and Bangkok; the researchers have used stratified sampling technique to determine the sample size. Total number of 237 stores was taken; 111 stores from Sydney and 126 from Bangkok. Managers, staff and customers of the sampled stores participated in the study. Despite that the study have shown the relationship between vision characteristics and content among the retail stores and how they influence performance, the study failed to study some of the mediate or moderating variables that can influence vision and performance.

According to the study conducted by Sandada (2014) in south Africa, one of the findings of the study suggest that, the mission and vision statements, environmental scanning and the formality of strategic planning have a positive effect on the performance of SMEs. While the formality of strategic planning has emerged as the factor with stronger impact on SMEs performance than environmental scanning, mission and vision. The study recommends that mission and vision, environmental scanning and formality of strategic
planning will reinforce SMEs sustainability and which will further stimulate their profitability. Even though the research has used the sample size of 200 respondents, the adjusted $r^2$ is below 0.5, which signifies the model used is not fit enough to affirm the perfect relationship between dependent and independent variables.

DAmboise, (2000) conducted a research on the relationship between strategic vision manifestations on Canadian SMEs. He grouped the SMEs into two categories; those belonging to traditional economy and those belonging to new economy. He has used judgemental sample to drawn a sample size of 47 SMEs from traditional economy while 61 SMEs were from new economy. The result indicated that there is positive and significant association between vision and a combined measure of variation in sales and profits in the case of the traditional firms but no such nexus was found for the sub-group of firms belonging to the new economy. Having strategic vision does not seem to be conducive to increased sales and profits in the businesses of new economy. However, the outcomes indicate a significant correlation between level of vision and the subjective measure of performance in a new economy.

2.6.2. Innovation and SMEs Performance

Innovation is a complex phenomenon that involves the production, diffusion and translation of knowledge in new or modified products or services, or the development of new production or processing techniques (Bigliardi, 2013). It reflects a firm's tendency to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services, or technological processes (Lumpkin and Dess 1996). There are different dimensions of innovation (Lumpkin and Dess, 1996, Egbetokun, et al. 2008). Innovation is an important component of a firm’s strategy mainly because it constitutes one of the principal means through which it can seek new business opportunities (Lumpkin and Dess, 1996 and Bigliardi, 2013). Today more than ever, a firm’s construction of sustainable competitive advantage crucially depends on its capacity to innovate (Marques and Ferreira, 2009). Innovation is considered by many researchers and managers to be critical for firms to compete efficiently in both domestic and global markets (Hitt et al., 2001). Indeed it facilitates the development of new organizational routines and the discovery of unique approaches to technologies, products, or processes and enables SMEs to adapt to changing market conditions through the introduction of new and refined products (McGrath, 2001; Ireland et al., 2009).

Innovation has become a prime source for gaining a competitive edge in the market for all companies (Bigliardi, 2013). Various studies have examined the relationship between innovation and organisational performance. Bigliardi, (2013) has investigated the effect of innovation of small and medium enterprises (SMEs) on their financial performance, as well as the effect of firm size on the impact of innovation. He has used the sample of 98 SMEs belonging to the food machinery industry and analyzed using a regression-based analysis. The empirical findings confirm that an increase in the innovation level increased financial performance. Bigliardi and Domio, (2009) examined the factors influencing innovation in an organisation even though they have divided innovation into product and process, but their findings provide contradictory view about innovation. They have confirmed that Firms innovate in process in order to enhance their market share, improve product quality and product assortments. This result pinpointed the fact that market and efficiency related objectives are strongly related with process related innovative output variables. This study was conducted in Italy, using quantitative approach.

Furthermore Marques and Ferreira (2009) have studied the factors that influence innovative capacity and the relationship between innovation and performance of manufacturing industry in Portugal. The study has found that factors that positively influence
innovative capacity include increase in the size of firm, earlier stage of life cycle of the organisation, organisational alliance or partnership and entrepreneurial capability. However the study has also indicated that the firm superior innovative capacity has positive impact on organisational performance. Therefore one of limitation of this research has viewed performance from the perspective of sales level, net profit/loss and success of new product. The study need to look at the effect of innovative capacity on employees as components of performance. Indeed the study has shown that innovative capacity has positive relationship with performance, and the sample of 246 firms which comprises of small, medium and large enterprises were used.

Koellinger, (2008) have studied the relationship between technology, innovation, and firm performance taken a sample of 7,302 European enterprises which were drawn from the survey conducted in 2003. The study found that innovative activity is not necessarily associated with higher profitability. However, in Nigeria the study by Egbetokun, et al. (2008) have indicated that there are different dimensions of innovation; these are product and process, incremental and radical innovation. In the study, product and process innovation are found to have almost equal significant toward SMEs. Furthermore, incremental innovation is far better than radical innovation on both product and process innovation. The study has concludes that incremental innovation is positively related to performance particularly on product quality. This study was conducted in Nigeria and the sample size that represents the population was not mentioned in the study.

2.6.3. Pro-activeness and SMEs Performance

Pro-activeness is crucial to an entrepreneurial orientation because it suggests a forward-looking perspective that is accompanied by innovative or new-venturing activity. It is being active to influence and lead the future rather than waiting to be influenced by it. It is about exploiting opportunities, and accepts the responsibility of failure (Kuratko et al., 2007). It is being able to anticipate future problems, needs for change, and improvement (Okudan and Rzasa, 2006). Pro-activeness was used to depict a firm that was the quickest to innovate and first to introduce new products or services (Miller 1983). The idea of acting in anticipation of future demand is an important component of entrepreneurship. Venkatraman, (1989) suggested that pro-activeness refers to processes aimed at anticipating and acting on future needs by "seeking new opportunities which may or may not be related to the present line of operations, introduction of new products and brands ahead of competition, strategically eliminating operations which are in the mature or declining stages of life cycle”. Thus, a proactive firm is a leader rather than a follower, because it has the will and foresight to seize new opportunities, even if it is not always the first to do so (Lumpkin and Dess 1996).

Kreiser et al., (2013) examined the relationship between elements of EO and SMEs performance taken the sample of 1,668 small-to-medium sized enterprises (SMEs) in nine countries across 13 different industries. In their research, they found that there is positive u shape relationship between innovation and pro-activeness while risk-taking have negative u-shape relation with SMEs` performance, even though the study confirmed that individualism was found to positively moderate the relationships between innovativeness-performance and pro-activeness-performance. These results suggest that differential relationships exist between three dimensions of EO and SMEs performance this means that there is positive relationship between pro-activeness and firms` performance. It has been asserted that Proactive firms are in a better position to exploit existing opportunities by scanning their environment for useful information that they can utilize to satisfy underserved markets. Furthermore, for firm to take a leadership position within the industry there is a need to have a proactive behaviour (Lumpkin and Dess. 2001). Thus, Proactive firms are also able to
create new opportunities for themselves by actively seeking to redefine their market; successful organisations in this vein benefits from increased levels of demand, higher levels of customer loyalty, and greater profitability (Covin and Miles, 1999).

### 2.6.4 Risk-taking and SMEs Performance

Risk taking is the willingness to absorb uncertainty and take the burden of responsibility for the future (Chen et al, 2004). It is one of the three key elements of EO, and one that enhances company profitability (Miller, 1983; Miller and Le Bruton-Miller, 2011). It is the degree to which managers are willing to make large and risky resource commitments and act in an uncertain environment (Miller 1983). Cantillon (1734) argued that the principal factor that separated entrepreneurs from hired employees was the uncertainty and riskiness of self-employment. It was expected that firms that have better performance would also have a higher level of risk propensity (Leko-Simi and Horvat, 2006). The risk–return theory it asserted that the higher the risk the higher the return. Return is one of the factors for measuring performance. It is imperative to understand at this point that every business endeavours must involve some degree of risk.

In the study conducted by Kraiser et al, (2013) examined the relationship between each components of EO, innovation, pro-activeness and risk-taking, they have taken the sample size of 1668 SMEs in nine different countries, which include, Australia, Costa Rica, Finland, Greece, Indonesia, Mexico, Netherlands, Norway, and Sweden. In the sample, owners and managers of the SMEs were the participants of the study. The study has shown negative U-shaped relationship between risk-taking and performance, but when innovation, pro-activeness and risk-taking were analysed together, risk-taking have shown partial negative relationship with performance of SMEs. Considering the individual culture as moderating variable, the research has also found that risk-taking was not significantly related to firm performance. In another study conducted by Morgan and Strong (2003) titled “Business performance and dimensions of strategic orientation”, they came to the conclusion that three of the characteristics of strategic orientation are positively related to firm performance, these are analysis, defensiveness and futurity. The research also indicates the existence of negative relationship between pro-activeness, riskiness, and aggressiveness. The population of the study were drawn from medium and large, high technology, industrial manufacturing firms. The work has confirmed that even among medium and high technological manufacturing firms, there is negative relationship between risk-taking and performance. The limitations of this research are poor adjusted $r^2$ of 0.14 and the used of multiple regressions instead of structural equation modelling (SEM). Wijetunge and Pushpakumari (2014) have examined the relationship between EO and SMEs performance in Sri Lanka. They found that each of the three dimensions of EO such as innovation risk-taking and pro-activeness are positively related to performance but less significantly related with risk-taking with market aspect of business performance. The researchers have taken the sample size to be 275 SMEs in Sri Lanka which all belong to manufacturing industry but only 200 questionnaires were used for data analysis. This investigation has failed to include other dimensions autonomy and competitive aggressiveness of EO in measuring the relationship between EO and performance. In another study by Arham, and Sulaiman, (2013) on leadership and risk-taking among entrepreneurs in Malaysia have found that entrepreneurs in Malaysia use more of transformational leadership than transactional leadership. However, what influence pro-activeness and innovativeness among entrepreneurs in Malaysia is risk-taking propensity. Virtually the study has used qualitative approach for the survey where nine entrepreneurs were taken for the collection of data. The study will be more appropriate for applying quantitative method or approach. In another study by Lee and Lim (2009), risk-taking and other dimensions of EO as highlighted by the study which include competitive
aggressiveness, innovation and autonomy have discovered that risk-taking have the lowest positive influence on performance. The study has taken the sample size of 140 restaurants in Japan. Multiple regression method was employ to regress EO and performance while ANOVA was used to examine the relationship between each dimensions of EO and performance. Mohammad et-al (2014) have study the relationship between four dimensions of EO and performance of SMEs in Kano Nigeria by taken the sample size of 352 respondents. The result has indicated that risk-taking has positive and significant relationship with financial performance among SMEs in Kano Nigeria.

![Figure 1: Conceptual Framework](image)

In conclusion, previous researches have investigated the relationship between vision, innovation, pro-activeness and risk-taking on SMEs Performance on unidimensional ground. This paper would combine the four variables to see how they influence SMEs performance in Kano, Nigeria.

3.0 Methodology

3.1 Research Design

This paper has employed quantitative approach to examine the influence of vision and entrepreneurial dimension on SMEs’ Performance. Therefore, vision, innovation, pro-activeness and risk-taking would be used to examine how they influence SMEs performance. Anderson et al. (2004) said that a quantitative research design is reliable because quantitative multivariate methods enable researchers to measure and control variables. However, Leedy and Ormrod (2005) proposed that quantitative research is appropriate to answer questions about relationships among measured variables with the purpose of explaining, predicting, and controlling phenomena. Therefore, quantitative survey research design can be used for this study so as to get valid and reliable outcome.

3.2 Research Instrument

To develop research instrument (questionnaire) previous researches were reviewed and professional were contacted. The review was purposely conducted to implore the
dimension of the questionnaire. Based on the review, two dimensions were identified, these are demographic information of the respondents and information regarding to variables of the study. Thus, constructs regarding to the variables can be discussed briefly below:

SMEs performance is measured using five items, they include: increase in market share, increase in sales, customers’ satisfaction, employees’ growth and increase in profit. Most of these items were also used by previous researchers such as Morgan and Strong, (2003); Kantabutra and Avery, (2010); Kraiser et al., (2013); Wejunge and Pushkumari, (2014); Sandada, (2014). Indeed, this construct consist of five items and the reliability of the items will be presented in the result of pilot study.

Vision is measured using four items and they consist of written vision, unwritten projection (unwritten vision) communication of goals to employees and setting up clear activity for the organisation. These four items were adopted from Kantabura and Avery (2010); Jiri et al., (2001). The reliability of the construct will be presented in the result of the pilot study.

Innovation is measured using six items and they are developed from the work of Sang and Lim (2009); Wejetunge and Kushkumari (2014); Bigliardi, (2013) they consist of improvement of the existing product/service offer to customers, studying business environment, introducing new product/service, introduction of new line of product/service, introduction of new production process and making changes to product/service offer to customers. The reliability of the constructs will be presented in the result of the pilot study.

Pro-activeness is measured using three items; they include searching for new business, being the first for introducing new product/service and imitating product/services of competitors. These measures were adopted from the work of Morgan and Strong, (2003). The reliability of the constructs will be presented in the result of pilot study.

Risk-taking is measured using five items adopted from the work of Lee and Lim (2009); Morgan and Strong, (2003). The items include high risk-return relationship, huge investment that may not necessary result in high return, going for product/service that other competitors want to keep away, flexible decision making in major decisions and following tried and true path. The reliability of the construct will be presented in the result of pilot study.

Table 1: Summary of measures of constructs

<table>
<thead>
<tr>
<th>Construct</th>
<th>Number of items</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage of Vision</td>
<td>4 items</td>
<td>Jiri et al., (2001); Kantabutra and Avery (2010)</td>
</tr>
<tr>
<td>Usage of Innovation</td>
<td>6 items</td>
<td>Sang and Lim (2009); Wejetunge and Kushkumari, (2014); Bigliardi, (2013)</td>
</tr>
<tr>
<td>Usage of Proactiveness</td>
<td>3 items</td>
<td>Morgan and Strong, (2003)</td>
</tr>
<tr>
<td>Usage of Risk-taking</td>
<td>5 items</td>
<td>Morgan and Strong, (2003); Lee and Lim(2009)</td>
</tr>
</tbody>
</table>

3.3 Reliability of the Instrument

Reliability refers to the ability of an instrument to produce consistent measurement (Kumar, 2014). It is also considered as degree of consistency and stability in an instrument.
Reliability signifies how an instrument is free from committing random error (Pallant, 2005). Therefore, the reliability of the instrument is measure through Cronbach alpha coefficient. However, Nunally (1978) suggests that for internal reliability to be valid the Cronbach alpha value must be 0.7 and above. The table 2 below shows the result of the reliability of the instrument.

Table 2: Result of Reliability of the items in the pilot study

<table>
<thead>
<tr>
<th>S/N</th>
<th>Constructs</th>
<th>Items</th>
<th>NO. of respondents</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SMEs’ Performance</td>
<td>5</td>
<td>100</td>
<td>0.867</td>
</tr>
<tr>
<td>2</td>
<td>Vision</td>
<td>4</td>
<td>100</td>
<td>0.893</td>
</tr>
<tr>
<td>3</td>
<td>Innovation</td>
<td>6</td>
<td>100</td>
<td>0.919</td>
</tr>
<tr>
<td>4</td>
<td>Proactiveness</td>
<td>3</td>
<td>100</td>
<td>0.741</td>
</tr>
<tr>
<td>5</td>
<td>Risk-taking</td>
<td>5</td>
<td>100</td>
<td>0.829</td>
</tr>
</tbody>
</table>

Source: Survey data for the pilot study

The Table 2 above depicts the summary of the reliability of each construct used in the pilot study. SMEs’ performance with 5 items and has Cronbach’s alpha value of 0.867; vision possess 4 items and has Cronbach alpha value of 0.893, innovation possess 6 items and has Cronbach alpha value of 0.919, pro-activeness possess 3 items and has Cronbach alpha value of 0.741 while risk-taking possess 5 items and has value of 0.829. This suggests that the coefficient of Cronbach alpha exceed the value of 0.70, the reliability of the measurements were achieved as recommended by Nunally (1978). The Cronbach alpha values for SMEs’ performance, vision, innovation, pro-activeness and risk-taking have met minimum threshold of 0.70 and above.

3.4 Population and Sample Size

The population of this study was based on the Corporate Affairs Commission (CAC) list of registered businesses of 2014. The CAC is the leading agency saddled with the responsibility of registering business organisations in Nigeria, out of a total of 62,957 businesses registered in Nigeria, 1530 businesses were registered in Kano and situated in Kano. The population of the study consist of owners and managers of registered SMEs in Kano State, Nigeria. The reason for chosen owners and managers is owing to the fact that they are the key decision makers, and they set and deal with the strategic aspect of their organisation. On the other side, sample size is drawn through Krejie and Morgan principles of sample size determination. Thus, sample size of this research comprises of 307 registered SMEs residing and situated in Kano state of Nigeria.

3.5Method of Data analysis

The method employed to analyse the research data is Structural Equation Modelling (SEM) through the use of statistical computer package called AMOS software. SEM is strong research technique used for quantitative data analysis; it is often called second generation method (Zainudin, 2014). It is an analytical technique which estimates and test hypothetical relationship between/among variables, as well as regression and factor analysis. It is path analytical method for handling multiple relationships (Hair et al, 2010). SEM is used for multiple regression equations simultaneously through structural modelling (Kelloway, 1998). Therefore, as stated earlier, SEM will be used to analyse research data since it has been used by previous studies.
4.0 Data Analysis

Basically, there are three aspects to the data analysis. They consist of exploratory factor analysis (EFA) confirmatory factor analysis (CFA) and test of hypotheses.

4.1 Exploratory Factor Analysis

Table 3: Result of exploratory factor analysis (EFA)

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Items</th>
<th>Factor loadings</th>
<th>Dimension Matrix</th>
<th>Cronbach’s Alpha</th>
<th>Number of Items</th>
<th>Internal Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>SME Performance</td>
<td>SP1</td>
<td>0.880</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SP2</td>
<td>0.927</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SP3</td>
<td>0.608</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SP4</td>
<td>0.735</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SP5</td>
<td>0.888</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vision</td>
<td>VS1</td>
<td>0.885</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>VS2</td>
<td>0.752</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>VS3</td>
<td>0.920</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>VS4</td>
<td>0.927</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>IN1</td>
<td>0.889</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IN2</td>
<td>0.860</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IN3</td>
<td>0.852</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IN4</td>
<td>0.846</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IN5</td>
<td>0.820</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IN6</td>
<td>0.829</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pro-activeness</td>
<td>PR1</td>
<td>0.849</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PR2</td>
<td>0.816</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PR3</td>
<td>0.771</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk-taking</td>
<td>RT1</td>
<td>0.802</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RT2</td>
<td>0.713</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RT3</td>
<td>0.808</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RT4</td>
<td>0.769</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RT5</td>
<td>0.757</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
From the Table 3 above it has shown that after conducting EFA, all the values for factor loadings are within the minimum threshold of 0.713 to 0.927 with Cronbach alpha value of 0.741 to 0.919 and all the constructs have one single dimension. Therefore, the minimum cut off point for factor loadings and Cronbach’s alpha is 0.60 and 0.70 respectively. This indicates that all measurement items in the pilot study are 100% suitable for further analysis.

**Table 4: KMO and Bartlett's Test**

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</th>
<th>SME Performance</th>
<th>Vision</th>
<th>Innovation</th>
<th>Pro-activeness</th>
<th>Risk-taking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approx. Chi-Square</td>
<td>0.801</td>
<td>0.819</td>
<td>0.891</td>
<td>0.672</td>
<td>0.742</td>
</tr>
<tr>
<td>Df</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>308.314</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Df</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>267.814</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Df</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>417.412</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Df</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>67.195</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Df</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>188.092</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Df</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The KMO and Bartlett's Test in Table 4 above shows that the Kaiser-Meyer-Olkinof SMEs Performance, vision, innovation, pro-activeness and risk-taking are 0.801, 0.819, 0.891, 0.672 and 0.742 respectively indicating that all of the constructs are above 0.60. Therefore, the KMO value is close to 1 and the Bartlett's test significance is at 0 for all of the constructs, this implies that the data is normal and suitable for further analysis.
4.2 Measurement Model Fit and Confirmatory Factor Analysis (CFA)

This aspect focuses on key findings in relation to initial measurement model fit and confirmatory factor analysis (CFA). Mueller, (1996) asserted that CFA involves testing of unidimensionality and evaluation of a data set by confirming the underlying structure on the basis of theoretical ground. It is used to test if measures of a constructs are consistent with researchers understanding of the nature of the construct (Zainud, 2014). Therefore, one of the requirements of CFA is model identification (Sale, 2006). However, standardised regression weights were the options to verify the dimensionality of the measurement or to verify the model fitness. Modification indices which comprised of variance, covariance and regression weight are used to evaluate the fitness of the model. Anderson and Gerbing (1988) opined that under condition of non-fitness of the model, relating or deleting indicator from the model are the preferred basic ways to ensure fitness of the model. Thus item deletion and adding a new path indicator are the appropriate ways to get a satisfactory fit model. Therefore, the following models can be used to identify how the model fitness has been attained.

![Measurement model not achieved](image)

**Figure 2: Measurement model not achieved**

The figure 2 above provides an illustration on the constructs, it is aim to examine how the model is fit. It is the first stage in dealing with CFA. The model provides information concerning factor loading, values of correlation of different constructs as well as the values for fitness indices. Therefore, as far as factor loading is concern, all the items in the constructs have reached the minimum requirement of 0.6 and above with the exception of e3(SP3) with factor loading of 0.59 and factor loading below 0.6 has to be deleted immediately as recorded in the literature. However, even though the model has shown good correlation among the constructs; that is no value above ≥ 0.80, but other fitness indexes are not yet achieved. Thus further measurements need to be taken in terms of deletion of items of the constructs or relating items in a construct as suggested by Anderson and Gerbing (1988).Due to factor loading challenge in e3 (SP3) whereby the value of the factor loading is 0.59 the item was deleted and further measurement was done to ensure model is fit for SEM. The result of the model fit will be seen in the next figure. Therefore, the Table 4 below summarises the information regarding the figure 2 above.

<table>
<thead>
<tr>
<th>Fitness Indexes</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. P-Value</td>
<td>.000</td>
</tr>
<tr>
<td>2. RMSEA</td>
<td>.085</td>
</tr>
<tr>
<td>3. GFI</td>
<td>.830</td>
</tr>
<tr>
<td>4. CFI</td>
<td>.900</td>
</tr>
<tr>
<td>5. TLI</td>
<td>.885</td>
</tr>
<tr>
<td>6. NFI</td>
<td>.863</td>
</tr>
<tr>
<td>7. ChiSq/df</td>
<td>3.236</td>
</tr>
<tr>
<td>Constructs</td>
<td>Items level</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>SMEs Performance</td>
<td>SP1</td>
</tr>
<tr>
<td></td>
<td>SP2</td>
</tr>
<tr>
<td></td>
<td>SP3</td>
</tr>
<tr>
<td></td>
<td>SP4</td>
</tr>
<tr>
<td></td>
<td>SP5</td>
</tr>
<tr>
<td>Vision</td>
<td>VS1</td>
</tr>
<tr>
<td></td>
<td>VS2</td>
</tr>
<tr>
<td></td>
<td>VS3</td>
</tr>
<tr>
<td></td>
<td>VS4</td>
</tr>
<tr>
<td>Innovation</td>
<td>IN1</td>
</tr>
<tr>
<td></td>
<td>IN2</td>
</tr>
<tr>
<td></td>
<td>IN3</td>
</tr>
<tr>
<td></td>
<td>IN4</td>
</tr>
<tr>
<td></td>
<td>IN5</td>
</tr>
<tr>
<td></td>
<td>IN6</td>
</tr>
<tr>
<td>Proactiveness</td>
<td>PR1</td>
</tr>
<tr>
<td></td>
<td>PR2</td>
</tr>
<tr>
<td></td>
<td>PR3</td>
</tr>
<tr>
<td>Risk-taking</td>
<td>RT1</td>
</tr>
<tr>
<td></td>
<td>RT2</td>
</tr>
<tr>
<td></td>
<td>RT3</td>
</tr>
<tr>
<td></td>
<td>RT4</td>
</tr>
<tr>
<td></td>
<td>RT5</td>
</tr>
</tbody>
</table>

The Table 4 above shows that all the items in constructs which consist of SMEs performance, vision, innovation, pro-activeness and risk-taking have met the minimum factor loading of 0.60 and above with the exception of SP3 which have a factor loading of 0.59. Therefore, in order to ensure model is fit, the item needs to be deleted as it can be portrayed in the second model. However, the Table 5 below presented information regarding to fitness indexes of the figure 2 above.
Table 5: Information of fitness indexes

<table>
<thead>
<tr>
<th>Name of index</th>
<th>Index value</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMSEA</td>
<td>0.085</td>
<td>The Required Level is not Achieved</td>
</tr>
<tr>
<td>GFI</td>
<td>0.830</td>
<td>The Required Level is not Achieved</td>
</tr>
<tr>
<td>CFI</td>
<td>0.900</td>
<td>The Required Level is Achieved</td>
</tr>
<tr>
<td>TLI</td>
<td>0.885</td>
<td>The Required Level is not Achieved</td>
</tr>
<tr>
<td>NFI</td>
<td>0.863</td>
<td>The Required Level is not Achieved</td>
</tr>
<tr>
<td>Chisq/df</td>
<td>3.236</td>
<td>The Required Level is not Achieved</td>
</tr>
</tbody>
</table>

The Table 5 above shows that some of the fitness indexes for figure 2 have not achieved the required level of fitness while others have achieved. Therefore, further measurement model need to be undertaken to achieve appropriate model. Thus the figure 3 below shows the result of achieved model fitness.

![Achieved model fitness diagram]

**Fitness Indexes**

1. P-Value = .000
2. RMSEA = .070
3. GFI = .901
4. CFI = .952
5. TLI = .940
6. NFI = .924
7. ChiSq/df = 2.508
The figure 3 above provides that the model is fit for SEM. This was as a result of the correlation among some of the items within a construct and items deletion. These two issues are fundamentally recommended as the process to ensure good model fit. From the model above all the items in the constructs have met the requirement of factor loading of 0.6 and above and fitness indexes have reached the satisfactory level. The chi-square goodness-of-fit shows that the model fit the data well, \( \chi^2 = 2.508 \) and the acceptable value is below 3.00 and \( \chi^2 \) is the most important statistic that ensures satisfactory model fit. Similarly, RMSEA presented value 0.07 which is also signified good fitness, this is because the acceptable value is 0.08 and below. Furthermore, GFI, CFI, TLI and NFI have possessed the values from 0.90 and above which is the acceptable value for each of the fitness indexes. Therefore, based on the presented values in the model this implies that the model is fit for further analysis. Thus Table 6 presents information regarding to the achieved model fit.

<table>
<thead>
<tr>
<th>Table 6: Achieved measurement Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct</td>
</tr>
<tr>
<td>SME performance</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Vision</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Innovation</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Pro-activeness</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Risk-taking</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
</tbody>
</table>

The Table 6 above indicates that all the items of the constructs have met the minimum cut point for the factor loadings as well as values of C.R. (Construct Reliability) and AVE (Average Variance Extracted). This signifies that all the fitness indexes have been achieved and convergent validity has been met. The Table 7 below presents information relating to the achieved fitness indexes.
Table 7: The achieved measurement model

<table>
<thead>
<tr>
<th>Name of Index</th>
<th>Index value</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMSEA</td>
<td>0.070</td>
<td>The Required Level is Achieved</td>
</tr>
<tr>
<td>GFI</td>
<td>0.901</td>
<td>The Required Level is Achieved</td>
</tr>
<tr>
<td>CFI</td>
<td>0.952</td>
<td>The Required Level is Achieved</td>
</tr>
<tr>
<td>TLI</td>
<td>0.940</td>
<td>The Required Level is Achieved</td>
</tr>
<tr>
<td>NFI</td>
<td>0.924</td>
<td>The Required Level is Achieved</td>
</tr>
<tr>
<td>Chisq/df</td>
<td>2.508</td>
<td>The Required Level is Achieved</td>
</tr>
</tbody>
</table>

The Table 7 above denotes that all the fitness indexes have met the desired requirement. This suggests that the figure 3 is good and can be used for SEM analysis.

4.3 Assessment of Model Validity (Discriminant validity)

According to Zhu (2000) values associate with convergent and discriminants are used to support or reject a claim of construct validity. Convergent validity signifies how items in the constructs are positively correlated while discriminant signifies the extent to which the correlation differ (Malhotra, 2002). After model fitness has been achieved, discriminant validity needs to be conducted to ensure that analysis using SEM can be conducted. Therefore the Table 8 below provides result for discriminants validity.

Table 8: Result of Discriminant validity

<table>
<thead>
<tr>
<th>Constructs</th>
<th>PR</th>
<th>SP</th>
<th>RT</th>
<th>IN</th>
<th>VS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR</td>
<td>0.805</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td>0.477</td>
<td>0.835</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT</td>
<td>0.136</td>
<td>-0.045</td>
<td>0.758</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN</td>
<td>0.732</td>
<td>0.553</td>
<td>0.333</td>
<td>0.786</td>
<td></td>
</tr>
<tr>
<td>VS</td>
<td>0.537</td>
<td>0.537</td>
<td>0.388</td>
<td>0.723</td>
<td>0.900</td>
</tr>
</tbody>
</table>

The Table 8 above depicts that discriminant validity is attained due to the fact that values that are in bold are higher than the values in the row and column. This testified that the model is fit and good for SEM.

4.4 Assessment of Normality Distribution for Items in the Respective Constructs

Normality in data set is part of the prerequisite when running SEM. Once the issue of unidimensionality, validity and reliability are dealt with and are satisfactory, the next line of action is to assess the normality of data set by the researcher (Zainudin, 2012). Bai and Ng (2005) stated that in the estimation process, normality is part of the requirement for analysis using SEM. However, the purpose of normality is to ensure that outliers has not manifested in the data set (Saleh, 2006). The fundamentals factors that are significant in determination of normality are skewness and kurtosis. According to literature skewness should fall within the range of -1.0 to 1.0 to indicate normal distribution and kurtosis should lies between +2 to -2.
The Table 9 above indicates that the skewness in the data set is within the range of -1.00 to 1.00 and kurtosis are also within the range of -2.00 to 2.00 This shows that the data is normal and good for further analysis.

### 4.5 Structural Equation Modelling

Before a researcher begins SEM analysis, certain procedures have to be observed; these include drawing of Path model, assessment of factor loading, unidimensionality to ensure fitness indexes are achieved, discriminant validity, and assessment of normality have to be satisfactory. Therefore, all of the mentioned requirements were achieved, thus the path of SEM has to be done. The figure 5 below implies the result of the SEM.
Figure 4: Result of SEM

From the figure 4 above shows that the value of $r^2$ is 0.43 which indicates that the contribution of vision, innovation, pro-activeness and risk-taking in estimating SMEs’ performance is 43%. However, Falk and Miller (1992) are of the view that the minimum requirement for $r^2$ value begin from 0.10 and above. From the model above the $r^2$ value is above 0.10 which reveals a very strong nexus between vision, innovation, pro-activeness and risk-taking on SMEs performance.

4.6 Result Analysis

This aspect will concentrate on the relationship between vision, innovation, pro-activeness and risk-taking on SMEs’ performance. The following Table 10 summarises the result of the independent and dependent variables for this research.
Table 10: Regression Weights and its significance

<table>
<thead>
<tr>
<th>Hypothesized path</th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMESPERFORM &lt;--- VISION</td>
<td>.266</td>
<td>.057</td>
<td>4.689</td>
<td>***</td>
<td>Significant</td>
</tr>
<tr>
<td>SMESPERFORM &lt;--- INNOVATION</td>
<td>.321</td>
<td>.109</td>
<td>2.939</td>
<td>.003</td>
<td>Significant</td>
</tr>
<tr>
<td>SMESPERFORM &lt;--- PROACTIVENESS</td>
<td>.095</td>
<td>.110</td>
<td>.871</td>
<td>.384</td>
<td>Not Significant</td>
</tr>
<tr>
<td>SMESPERFORM &lt;--- RISKTAKING</td>
<td>-.296</td>
<td>.056</td>
<td>-5.294</td>
<td>***</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Result 1 examined the relationship between vision and SMEs’ performance. From the analysis, the result revealed that the proposed relationship indicates that the relationship was statistically significant (β= .266, p< 0.001). The result depicts that when Vision goes up by 1, SME’s Performance goes up by 0.266. However, the positive regression coefficient signifies positive influence between vision and SMEs’ performance.

Result 2 has investigated the association between innovation and SMEs’ performance. The result suggests that innovation and SMEs performance has positive and significant relationship. The result further indicates that the relationship is statistically significant (β= .003, p<0.01). When Innovation goes up by 1, SMES’ Performance goes up by 0.321. The result shows that there is positive significant relationship between innovation and performance.

Result 3 explored the correlation between Pro-activeness and SMEs’ performance. It was reveals that Pro-activeness has positive link with SMEs performance. The result further implies that the relationship is not statistically significant (β= .384, p< 0.05). When Pro-activeness goes up by 1, SMEs’ Performance goes up by 0.095. The result indicates that there is weak positive but not significant relationship between pro-activeness and SMEs’ performance.

Result 4 examined the nexus between risk-taking and SMEs’ performance. The outcome was that there is negative and significant association between risk-taking and SMEs’ performance. The result denotes that the proposed relationship is statistically significant (β= -.296, p< 0.001). The outcome indicates that there is negative significant tie between Risk-taking and SMEs’ performance. The result shows significant link but not positively related.

From the result above, there are four independent variables and one dependent variable. The outcomes have shown that the relationship that exists between vision and SME` performance, is positive and highly significant; this reveals that a more focus SMEs that have a clear direction can outperformed any other type of SMEs even if there are innovative, proactive and risk-takers. However, the result also signifies that innovation has positive and significant to performance whereas pro-activeness has weak positive and not significant connection with performance. Lastly, risk-taking has revealed a negative and significant nexus with performance; this signifies that the more organisations are prone to risk the less they perform.

The results provided support for conceptualizing the influence of vision, innovation, proactiveness and risk-taking on SMEs’ performance. Based on the findings of the study it is quite glaring that vision, innovation and risk-taking are the most essential characteristics that have significant influence on SMEs performance and are most predictive factors that determine SMEs performance. Thus, SMEs operators that are more exposed to setting a clear goal and have clear set of activities would performed superbly interns of increase in sales, customer patronage and many other constructs that are related to the performance. In the same vein innovative SMEs tend to also achieved well due to their ability in launching of a new product or advancing the existing one as well as studying of the market environment. On
a general note, out of four characteristics of entrepreneurial leadership, vision and innovation are the most significant toward the good performance of SMEs organisation.

4.8 Conclusion and Recommendations

The primary motive for conducting this research is to examine the influence of vision, innovation, pro-activeness and risk-taking on SMEs’ performance. In other word the study has investigated the four characteristics that link leadership and entrepreneurship as proposed by Cogliser and Birham, (2004); Fernald et al., (2005). Therefore, based on the findings of the study, the following recommendations are provided.

SMEs should consider setting vision for their enterprise as priority as doing so will enable them to have competitive advantage.

Periodic innovation through making changes on the product, services offer by SMEs can lead to competitive advantage. SMEs ought to appreciate the fact that making modification on product or service overtime or exploring new market can succour their business to outperform.

SMEs have to learn the basic steps of taking business risk, because taking risk can allow them to prosper in the course of business activities.

Lastly government should set up organisations that can be given SMEs operators basic training on how to set vision for their enterprises, making modification and improvement on their businesses and when to take and how to manage business risks.
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TECHNOLOGICAL ALTERNATIVES FOR SUSTAINABLE BUILDINGS IN NIGERIA

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snoluigbo@abu.edu.ng

ABSTRACT

Technology has always been a key determinant of the character of the built environment, and remains the key factor in the quest for sustainable buildings in the present age. However, sustainable building is context specific, and can only be truly sustainable where the technologies to prosecute it are available. Strategies for achievement of sustainable buildings in any society should be based on technological capabilities of that society. An array of technological dimensions in the discourse on sustainable buildings include the eco-centric and techno-centric approaches, and the high-tech and low-tech methods. These dimensions are here discussed in order to expose their interactions in the achievement of holistically sustainable buildings. The paper concludes that the most appropriate technology for sustainable buildings is one which addresses the immediate challenges of a society, within the global framework for sustainability. This does not necessarily involve complicated and imported fittings or technologies. It is therefore recommended that architects and other persons involved in the delivery of buildings, right from their initiation to completion, should prioritize their approach to sustainability based on the nature and objectives of the project at hand, in order to contribute to the quest for a sustainable built environment.

Keywords: Building, capabilities, high-tech, low-tech, sustainability, technology.

INTRODUCTION

Technological development has always stirred the course of building and dictated the character of the built environment. From the Palaeolithic age to the industrial revolution, the development of basic tools, the taming of fire, discovery of glass, improvement of existing building materials, and production of new ones, and extrusion of metals all changed the face of building and provided exposed new possibilities. This demonstrates the interconnectedness between building, technology, and society. In the present age, challenges to the preservation of our common heritage has led to global acceptance of sustainability as a canon for all human activities.

Sustainable buildings demand innovation and the deployment of requisite technological capabilities towards solving existing problems. A survey conducted in selected countries in 2009 showed that 94% of the members of building team have participated in sustainable building projects. This figure is on the increase and it was projected that by 2015 more than half of the surveyed firms will be at high levels of involvement in sustainable building projects (McGraw-Hill Construction and United Technologies, 2009).

While the developed countries possess the requisite technological capabilities and are continually turning out new alternatives to address the problem of sustainability, developing countries appear to be relegated to the position of technological product consumers. This is evident in the massive importation of building materials and renewable energy products. The
reduction of this imbalance lies in the development of local sustainable architectural technologies. It is in this light that this paper looks at various dimensions and features of technology application in sustainable building. The objectives of the paper are to:

i. Highlight the place of technology in the achievement of sustainable building;
ii. Give an overview of various technologies applicable to sustainable building.

GOALS OF SUSTAINABLE BUILDINGS

Sustainable building demands the creation of buildings using processes that are environmentally responsible and resource-efficient throughout a building's life-cycle from siting to design, construction, operation, maintenance, renovation and deconstruction. Although new technologies are constantly being developed to complement existing practices, the common goal of sustainable building is to create built environments that reduce negative impact on human health and the natural environment. This demands efficiency in the use of energy, water, and other resources, protection of occupant health and improvement of productivity, and reduction in waste production, pollution and environmental degradation (Hopkins, 2009 as cited in Isimi, 2010). Similarly, Kim (1998) listed three broad concerns of sustainable building as, economy of resources, Life Cycle Design (LCD), and humane design. Economy of resources is concerned with the reduction, reuse, and recycling of the natural resources that are input to a building. Life Cycle Design provides a methodology for analysing the building process and its impact on the environment. Humane Design focuses on the interactions between humans and the natural world (Kim, 2004). Also, the LEED rating system identified five key areas of sustainable building as: human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality (United States Green Building Council, (USGBC, 2009).

TECHNOLOGY AS FOUNDATION OF SUSTAINABLE BUILDINGS

The definition of technology is diverse and varies based on the field of study or perspective from which a discourse is approached. Technology entails the application of knowledge to the practical aims of human life (www.cantechletter.com), or the organization of activities designed to assist human adaptation to, participation in and utilization of the environment (Braham, 1977). In order to apply technology, a society must possess the technological capabilities. Technological capability connotes the availability of skilled persons who have the required technical knowledge about a process (Chambua, 1996). For sustainable building, capabilities are required both in the harnessing of natural resources and in the construction process. However, Gallopin (2003) noted that achieving sustainable design does not lie in extraordinary solutions, but can be achieved through the application of simple but rational solutions.

The search for sustainable building in Nigeria and developing countries in general should aim at reducing import-dependence and strengthening of domestic technological capability and locally produced building materials. This is because technologies which are not locally available may only become holistically sustainable through a process of technology transfer and diffusion (Oruwari, Jev & Owei, 2002). In line with this the United Nations Framework Convention on Climate Change (UNFCCC) called for the deployment, diffusion, and transfer of technologies, practices and processes that reduce emissions of Green House Gases (GHGs) in all sectors (United Nations Framework Convention on Climate Change (UNFCCC, 2009). It is also important to understand that globalisation has led to the transformation of architectural practice with an increasingly international clientele (Knox, 2011). This suggests that knowledge of sustainable architectural technology should go beyond local context and issues for successful architectural practice.
The technological knowledge required for particular sustainable architectural problems may lie in innovative use of simple passive, eco-centric, and low-tech solutions, or in more advanced active, techno-centric, or high-tech. It is also possible that the challenge is posed by particular issues such as economy (cost) or energy. However, the solutions must take into cognisance the fact that sustainable building is context specific.

**Eco-Centric Vs Techno-Centric**

Techno-centricity connotes the pursuit of sustainability using technological means. The ideology of the practitioners accepts that environmental problems do exist, but are not problems to be solved by a reduction in industry. Rather, environmental problems are seen as problems to be solved using science (Encyclopaedia of sustainable development, 2008). The techno-centric orientation is based on absolute faith in technology and industry and firm belief that humans have control over nature. As such they see that the way forward for developed and developing countries and the solutions to our environmental problems today lie in scientific and technological advancement. The focus is on material advancement, in the superiority of 'high' over 'lower' technology, in the sustainability of economic growth, and in the ability of advanced capitalism to maintain itself.

Eco-centrism, means values centred on ecology. This approach is subject to nature, rather than in control of it, and lacks faith in advanced technology and the bureaucracy attached to it. Eco-centrists will argue that the natural world should be respected for its processes and products, and that low impact technology and self-reliance is more desirable than technological control of nature (Encyclopaedia of sustainable development, 2008). Substantial part of the knowledge required for an eco-centric sustainable building is covered in the curriculum of many schools of architecture under environmental science, building climatology, thermal comfort and so on. The focus here is on passive solar design. However, it appears that many architects in Nigeria do not give adequate attention to this.

**Low-Tech vs High-Tech Solutions**

Low-Tech approach to sustainable building implies the use of non-sophisticated materials and techniques. This is achieved by innovative use or adaptation of simple regionally available indigenous, traditional, vernacular or modern materials and methods. It interacts directly with site and climate in order to minimise energy demand by initiating a dialog between indoor and outdoor environment. Bianca-Daniela (2012) noted that this approach is based on knowledge of nature and climate which has been accumulated through the ages. Some of these technologies include the general passive design strategies and associated features such as evaporative cooling and cooling towers, passive downdraught systems, green roofs, and appropriate selection of climate-responsive building materials. In contrast to this, High-Tech solutions are based on advanced modern technologies, relying on a strategy of compensation aiming to balance out inner climate conditions with intelligent building technology (Bianca-Daniela, 2012).

Cody (2014) noted that there is the recurring question of which of the two approach (High-Tech or Low-Tech) is more suited to help achieve a sustainable development. This question perhaps requires no answer since sustainable design is context specific, and design problems and programs vary in context and complexity. The combination of both approaches are of course possible in any project. In developing countries such as Nigeria, the major architectural challenge still remains the provision of comfortable housing and its energy needs. This challenge can only be overcome by harnessing the benefits of both Low-tech and High-Tech features where possible.
APPLICATIONS OF SUSTAINABLE TECHNOLOGIES IN BUILDINGS

Building Materials and Construction Technologies

Building materials constitute about 70 percent of total cost of buildings (Oruwari, Jev & Owei, 2002). According to Pierre and Alex (2013), one of the characteristics of sustainable building materials include being locally produced and sourced. Contrary to this, it is not uncommon to see many projects in Nigeria constructed of materials which were largely imported. The alternative lie in the harnessing of readily available materials such as earth, small-scale raw material deposit, agricultural products and residues, industrial wastes, low cost and renewal sources of energy and established technologies which can readily be applied to the local production of building materials (Oladapo & Oni 2012). Many of these materials have low Gross Energy Requirements (GERS). These materials however require strengthening of domestic technological capability and innovativeness to translate into acceptable houses.

Also, building materials, from their production through their transport, installation and use to disposal, have significant, impacts on human health and the built environment. The use of building material on a site saves production cost, time, energy, environmental pollution and transportation cost. Worthy of note when discussing materials is the Life Cycle Assessment (LCA) which is the evaluation of the impacts of materials from their resourcing and production to disposal.

Compressed Earth Bricks (CEB)

Concrete blocks have long been by far the dominant building material in Nigeria. Construction with concrete block tends to be labour intensive and construction cycles are long, since block structures must settle before finishing work can be done. One of the recently popular dry construction technologies is the use of Compressed Earth Bricks (CEB) (Plate II). Pierre and Alex (2013) gave the following as the advantages Compressed stabilized earth blocks:

i. It is much cheaper than bricks.
ii. Use of local soil and on-site manufacturing saves on transport costs and fuel consumption, especially in remote areas with poor road infrastructure.
iii. Low embodied energy value of around 0.42 MJ/kg and a negligible carbon footprint.
iv. Earth structures have good thermal properties which save on heating and cooling costs.
v. Earth blocks are fire, noise and bug resistant.
vi. The brick-making process can be easily taught, and the stabilizer can be used in remote areas to create earth building material (Plate I & II).
Plate I & II: Compressed Earth Bricks used at Primary School at Gando, Cote de Ivorie. Source: Varanda (2004); Dry construction using CEB at CITEC Estate, Abuja.

Polyethylene Terephthalate (PET) bottles (plastic bottles)

There is the innovative use of the so-called “waste-to-wealth” materials in construction. One of such is the use of Polyethylene Terephthalate (PET) bottles (plastic bottles) which hitherto littered many cities in Nigeria (Plate III, IV, V & VI). Plastic bottle construction was popularised by Andres Froesse, founder of Eco-Tec Soluciones Ambientales.

Plate III & IV: Construction using PET bottles as Sabon Yelwa, Kaduna State.
**Plate V & VI**: Exterior and interior of a plastic bottle building. Source: (Sparks, 2009).

**Earth bags**

Earth bag construction involves the use of bags filled with obtained from the nearest source. The bags are usually low-cost polypropylene or geo-fabric bags. It requires no bricks or concrete which with makes it cheap and eliminates embodied energy and emissions associated with transportation (Plate VII).
Energy Efficiency

In many parts of the world, aggressive policies have been put in place to encourage the use of new and alternative energy sources as well as efficient utilization of energy (Ching, Mohd & Yow, 2011). Gottfried (1996) noted that heating, cooling, ventilation, and lighting account for about 50 percent of energy used in buildings, and noted that application of technologies for achievement of climate-responsive buildings could cut heating and cooling energy consumption by 60 percent and lighting energy by at least 50 percent. In conjunction with this, renewable energy can be harnessed to make the building more sustainable. Technologies for sustainable energy use in buildings can be classified into two as follows:

i. Application of passive design technologies; and

ii. Use of building integrated renewable energy technologies.

Passive design technologies

A good example of the application of passive energy efficiency technologies can be seen in the Green Passive House and 'Plus' houses. This building achieved a plus energy standard through the application of effective technologies of heat distribution and ventilation, and by use of alternative energy resources such as biomass and photo-voltaic cells (Plate IX & X).
Building integrated renewable energy technologies

In many instances architects claim to have designed sustainable buildings whereas all they did was to design buildings and invite appropriate service engineers such as mechatronics engineers or technicians to append renewable energy fittings. The role of the architect in the supply of renewable energy features lies in the integration of such features in the design, right from the conceptual stage. Renewable energy technologies include; wind energy; solar energy, biomass, geothermal energy, and hydro-electricity. However, wind and solar energy technologies are presently most easily integrated into building.

Globally, the long-term technical potential of wind energy is believed to be five times total current global energy production, or 40 times current electricity demand, assuming all practical barriers needed were overcome. Modern technology involves the conversion of kinetic energy into rotational energy and then to electrical energy through wind turbines, which can be integrated into the design of buildings (Plate XI & XII).
Recently, the concept of building integrated PV panels (BiPV) have been widely accepted, which treats the panels as construction materials rather than electricity generators. The advantage of doing this is that the PV panels would become a layer of thermal insulation on the building, saving significant construction costs to compensate the high capital costs of PV. However, maintenance would be more difficult with BiPV (Plate XIII & XIV).
Water Efficiency

Water-efficient technologies can reduce consumption by up to 30 percent (Gottfried, 1996). A wide range of technologies and measures can be employed to harness and save water and associated energy consumption. These include:

i. Water-efficient plumbing fixtures (ultra-low-flow toilets and urinals, waterless urinals, low-flow and sensored sinks, low-flow showerheads, and water-efficient dishwashers and washing machines);

ii. Irrigation and landscaping measures (water-efficient irrigation systems, irrigation control systems, low-flow sprinkler heads, water-efficient scheduling practices, and Xeriscape); and,

iii. Water recycling or reuse measures (Gray water and process recycling systems) (Plate XV& XVI).

Plate XV & XIV: Water harvesting technology. Source: www.ecosoft.org; www.bayroofingwltv.co.uk

FROM SUSTAINABLE TO SMART/INTELLIGENT BUILDINGS

Intelligent buildings optimise energy efficiency in buildings since they only use energy when it is really required, use the amount of energy actually required, and apply the energy that is used with the highest possible efficiency. In a technological context, “smart” systems use Information and Communication Technology (ICT) to optimize their performance by adapting to changing conditions in a dynamic environment (Cody, 2014).

Intelligent building is one where the combination of technologies and interconnected systems supports the use of the accommodation by the building’s users, enables the efficient operation of the building and enables reconfiguration of the space in response to changing use. Intelligent buildings may also be referred to as smart buildings.

An intelligent building is a building that controls various systems and manage them in the most energy efficient manner. They vary the environment to suit the users and also to provide various means of communication or network regardless of whether it is internal or
external. Building intelligence starts with monitoring and controlling information services known as Building Automation System (BAS).

Figure 1: Intelligent building automation system. Source: Zsebik (2010).

REMOVING THE BARRIERS TO SUSTAINABLE BUILDING

Studies have identified behavioural – cognitive and social, pedagogical, and professional barriers to the pursuit of sustainable building (Hoffman & Henn, 2008; Altomonte, 2009). Some of these barriers include; cultural change resistance, awareness by the client, lack of knowledge and understanding from design professionals, difficulty in getting contractors with green building design expertise, lack of legislation, and insufficient policy implementation effort (Zhang, Platter & Shen, 2011; Samari, Godrati, Esmaeilifar, Olfat & Shafiei, 2013; Ahn, Pearce, Wang, and Wang, 2013; Ametepey, Aigbavboa & Ansah, 2015; Nduka & Ogunsanmi, 2015). These array of barriers shows that the promotion of sustainable building is an obligation for all stakeholders and needs to be addressed from various dimensions. There is therefore the need for advocacy and education in order to promote the gradual integration of sustainable building features in buildings in Nigeria.

Need for Advocacy

Bodt (Undated) noted that for people to make the change from unsustainable to sustainable behaviour it is first of all necessary to have sufficient and well-balanced information regarding current issues and policies. They should also have the capacity to evaluate this information within their personal context in order to make the right decisions, especially since many of these issues involve their everyday life as well as the lives of future generations. To achieve this, advocacy should effectively communicate the relevant facts and messages about sustainable building and exploit a variety of means of communication such as the internet, local conferences, workshops, newspapers and journals, magazines and radio (Samuelsson & Kaga, 2008).
Need for Education

United Nations Education Scientific and Cultural Organisation (UNESCO, 1997) stated the need for education in order to promote sustainable development, and called for interdisciplinary inquiry and action. It also noted that education for sustainable development extends beyond the boundaries of individual subjects and requires integrating the objectives, concepts of sustainable development into syllabuses and teaching programmes. Also, early childhood education for sustainability is required, and this should be broader than simply taking children outdoors to discover the beauty of nature and speaking. It must include opportunities for children to engage in intellectual dialogue regarding sustainability, and in concrete actions in favour of the environment (Samuelsson & Kaga, 2008).

CONCLUSION AND RECOMMENDATIONS

It is evident that technology is the foundation of sustainable building and advancement in sustainable building is not possible without the requisite technological knowledge and capabilities. Lack of technological capabilities is however not an excuse for being left out of the calling to sustain the global heritage. However, there is need for all stakeholders in the building process to be oriented towards sustainable building for this to be achieved. This paper therefore recommends the following:

i. Advocacy and education for both building professionals and prospective building owners (clients and the general public);
ii. A return to the basics environmental science, building climatology and sustainable building;
iii. Adaptation of indigenous and local sustainable architectural technologies to contemporary buildings;
iv. Increased global collaboration for acceleration of transfer of essential high-tech especially in relation to energy.
REFERENCES


THE IMPACT OF PETROLEUM PIPELINES VANDALISM ON AGRICULTURAL PRODUCTIVITY IN NIGERIA

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Abstract:

This study assesses the impact of pipelines vandalism on agricultural productivity in Nigeria. To achieve this objective, the study utilized secondary sources of data. The secondary data were obtained from Federal Ministries, the Central Bank of Nigeria (CBN), National Bureau of Statistics (NBS), Nigeria National Petroleum Corporation (NNPC), and Newspapers, Magazines as well as the World Wide Web sites. Simple descriptive and multiple regression analysis were used for data analysis. The descriptive statistics used include percentage and frequency distribution. Various test such as sensitivity analysis to test for possibility of outliers, Jarque-Bera test for normality and Unit root test for stationarity of variables were carried out on the secondary data prior to subjecting same to regression analysis. The findings revealed that the impacts of pipelines interdiction on farm output is insignificant as established by the coefficient (-0.505), the insignificant t-value (-0.6298) and high probability value (0.7908). The implication of the coefficient is that one litre of products spill from vandalized petroleum pipelines leads to 0.50kg reduction in farm output. The findings in fish harvest revealed similar pattern, indicating negative but insignificant coefficient (-1.228), t-value (-0.949) and high probability (0.3565). The coefficient in this case implies that a litre spilled into the river results to 1.3 tones reduction in fish harvest. On life loss, the study established that one life loss of fisherman occasioned by pipelines vandalism leads to the loss of 10 tones of fish over the study period. This is established by a significant t-value at 5% (3.009) and relatively low probability (0.0083). The study concludes that petroleum pipelines vandalism does not significantly affect agricultural activities in the study area as was been widely reported. On the contrary, there are other variables that had far reaching impact on farm output. Based on the findings, the study recommends synergy between the government, multinational oil companies and the host state with the hope of establishing the cause of low agricultural productivity. There is also the need for concerted effort on the part of both the government and the Multi-national oil companies to ensure that deficiencies arising from structural defect, out dated pipelines, pressure induced rupture are remedied.

Key Words: pipeline vandalism, agricultural productivity. Insignificant coefficient, Structural defect, synergy

Background to the Study

Nigeria has vibrant agricultural sector due to its abundant arable land for crop production as well as fresh water for fishing (domestic and crustacean fishing). From these sources the country derives the bulk of its capital requirements for local industries and also raw material for both local and foreign industries. Agriculture is a source of income for a large number of people. The sector also plays a very important role in meeting the basic needs of the nation. It provides a wide variety of food crops which to some extent make the
country self- sufficient in food items. The major crops produced are sorghum, millet, rice cowpea, groundnuts, cocoa, cotton cassava, yam etc. The agricultural sector in Nigeria employs about 70% of the nation’s work force. It also contributes about 65% of the Gross Domestic Product (GDP), (CBN 2008).

In spite of the contributions of the agricultural sector to the economy, the country occasionally witness food shortages. The main problems of the sector include; none availability of finance and credit facilities, illiteracy, limited farm extension officers, unpredictable weather, price fluctuations, government policy among others. As a result, the country depends on import to meet its food requirement (Adepagis & Awodummyiwa, 2008 as reported in Amusa & Okorie, 2011). In addition to these problems was also farm and river pollution.

In Rivers State, agriculture remains the backbone of the economy and one of the major means of livelihood. The majority of people in the rural areas are farmers. The mangrove swamp forests which cover Rivers State lends the state to the production of fruits, vegetable, swamp rice, maize, legumes, poultry and fisheries. Also the tropical rain forest of the state are amenable to the production of tree-crops, root –crops and tubers nuts, legumes, poultry, fishery and piggery.

Subsistence agriculture is widely practiced in the state; farming activities in the state like in any other state in Nigeria largely depend on soil fertility; therefore for bumper harvest to be achieved, bearing adequate rainfall, the soil should be pollution free. The state possesses great potentials for achieving self sufficiency in the fish production necessary to ensure adequate and reliable supply of food proteins to the teeming population. Fishing activities is made easier in the state due to the presence of extensive coastlines, extensive blackish water lagoons and creeks, rivers and lakes. These sources form the focal point in the operation of the fishermen from the state.

The case of petroleum pipelines vandalism in Nigeria came into prominence from the early 1990’s and since then gained momentum. The route that has the highest number of cases was Port Harcourt and Warri axis. Statistical evidence indicates that Port Harcourt recorded 600 line breaks in 2003. This figure rose to about 1,650 cases in September 2006. In the Warri axis the figure increased from 100 line breaks to 600 during the same period, (Onuoha, 2010).

There is hardly any case of petroleum pipelines vandalism without considerable damage to the environment. The cost has been quite phenomenal in terms of human and material losses arising from pollution, pipelines fire, replacement of damaged pipelines, irregular supply of petroleum products and the exacerbation of the problem of ecological devastation.

The consequences of petroleum pipelines vandalism could be enormous both in human and material terms. Aside from possible loss of revenue, oil spillage has direct consequences on the environment of the host communities. This study basically assessed how Petroleum Pipelines Vandalism impacted on the agricultural output in Rivers State of Nigeria. The agricultural activities of interest are crop farming (yams and cassava) and fish harvest.

**Statement of the Problem**

The current economic problem facing Nigeria calls for thorough x-ray into the performance of various sectors of the economy. There is no gainsaying that the global crude market is witnessing yet another round of downward slid in price. However, this negative fluctuation is not a new phenomenon in the country’s socio-economic history. Thus, lessons ought to have been learnt from past event.

Pipelines are the major link from points of exploration to various distribution channels. These pipelines that transverse the environment impede on the inhabitants of host
states. This is particularly the case where such pipes are subjected to third party interference. The rural areas in the states through which distribution pipelines traverse are predominantly inhabited by farmers and fishermen. In other words, the livelihood of the residents is dependent on agricultural and other economic activities ranging from farming, fishing, petty trading, carpentry, constructions, welding, menial services etc. Majority of the people in the study area are farmers and are vulnerable to environmental dynamics. They bear the adverse effects of natural hazards, biodiversity loss and forest depletion, pollution and the negative impact of oil industry. More often than not, oil spill from vandalized pipelines flow into the farmland and or the river, thereby affecting the socio-cultural, economic and environmental wellbeing of the people. The question that arises here is what are the effects of such occurrences on the agricultural activities of the host community?

It is worthy of mentioning that out of the five crude oil refineries in Nigeria two are situated in Rivers state. Despite this predominance, most studies on petroleum product related matters were all inclusive (studying the whole of Niger Delta Region). Logically it is expected that local residents in this state will benefit and or suffer anguish and pains occasioned by oil exploration and production more than others that made up the Niger Delta Region. Therefore, there is the need for an independent study on the impact of pipelines vandalism on Rivers State agricultural sector.

Objectives of the Study

The objectives of this study are to assess the impact of Petroleum Pipelines Vandalism on the agricultural output in Rivers State of Nigeria. The study would also:

i) assess the effects of pipelines vandalism on the annual farm output per hectare in the study area;
ii) assess the effects of pipelines vandalism on annual fish harvest in the study area;
iii) determine the agricultural activity that was most impacted upon as a result of pipeline vandalism

Research Hypotheses

The study tested the following hypotheses:

H₀₁: There is no significant relationship between pipelines vandalism and annual farm output.
H₀₂: There is no significant relationship between pipelines vandalism and annual fish harvest.

Introduction

The history of petroleum pipelines vandalism in Nigeria could well be said to be of a recent occurrences because as recent as 1996, only thirty (33) reported cases was officially documented. However over the years, there was consistent increase in the act. A total of 16,083 petroleum pipeline breakages were recorded between 2000 and 2010. out of this number, 398(2.4%) was attributed to rupture while 15,685 (97.5%) to vandalism. The most vandalized system was the 2E/2EX; the systems that supply crude from Port Harcourt to Aba-Enugu-Makurdi deports onwards to Yola-Enugu-Auchi. Of these routes, Port Harcourt-Aba/Isiala-Ngwa axis was the most threatened. The axis alone witnessed a total of 8,105 breaks between 2000-2010 leading to the loss of over N78.15billion in product loss and repairs. Aside from the economic implication of the petroleum pipelines vandalism on the citizenry and government, it greatly affects the individual farmers/fishermen, this include damage to farm, river/stream, fish ponds, nets and trap, (Yo-Essein, 2008).
Impacts of Petroleum Pipelines vandalism on Agriculture

The major physiological needs of man are food, cloth and shelter. To meet these basic requirements, man exploits the growth and development of plants and animals within his environment. Thus agriculture is central to human survival, (Yaudeowei, Ezedinma & Omazi 1986; Yao. & Liu, 1995; Aigbokhan, 2001; Amusa, Enete & Okon, 2011).

Agriculture in this context includes farming, fishing, rearing of animals and forestry. In most oil producing countries of Latin America and indeed all countries in the sub Saharan Africa, over half of the working populations are engaged in agriculture. This underscores the importance of land and rivers to the people. Thus, both the land, rivers, canal, that are within the environment form the basis for daily itinerary (Gail 2010). The same environment is a home to various shapes of pipelines.

Pipeline vandalism as presented in Odu & Offodum (1986); Naanen (1995); Ndibe et al (2005); Madueme (2008); Onuoha (2010); Brume (2005) had serious negative effect on farming and fishing. It is a major cause of reduction in farm output. Thomas (1985); Rose & Jedi (2010), opined that the main havoc created to farming population by pipeline vandals was land degradation and water contamination. Both are capable of rendering an economy useless as witnessed in Changqing- South West China. That incident led to the dearth of 234 people and, also destroyed hundreds of acres of farm land, barn as well as animals. (Corbett 1996; Hopkins et al 2008; Gail, 2010).

The devastating effect of pipelines vandalism on the agricultural sector was witnessed in Ecuador in 2009. Large acres of arable land were awash with spilled crude oil leading to farmers abandoning their farmland. Product loss was estimated at 10 to 15 million dollars. The effect is not only limited to loss of product, runoff from impacted sites pollutes domestic water supply sources, kill fishes and other aquatic foods. In most cases when this occurs, people relocate to other safer environment. In the case of Ecuador, the government had to relocate most of the farmers to other places (Corbett 1996; James et al 2003, Andress 2010; Aroh et al 2010). According to Patiece et al (2009), petroleum pipelines vandalism induced oil spill often spread over a wide area, destroying crops and aquacultures through contamination of the ground water and soils. The consumption of dissolved oxygen by bacteria feeding on the spilled hydrocarbons also contributes to the death of fish.

Buttressing further to the impacts of petroleum pipelines interdictions on farm output, James, et al,(2003), opined that it is quite enormous especially when it occurs during the activity period. These often result to considerable loss of income to both the household and the governments. According to Micheal (2007), the invasion of Iraq by the Allied forces led by the United States of America and subsequent destruction of petroleum products pipelines led to the monumental oil spillage into farmlands. This cost the Iraq government millions of dollars in agricultural output. In furtherance to the impact of vandalism on farm/land/rivers, Robert, (2005); Pamex Report, (2010.), cited the incident at the Occidental petroleum’s Cano Limon in Columbia which led to the spill of 1.7m bbl of crude oil unquantifiable damage to farmland, rivers/canals/ponds and farm produce.

The magnitude of the impact of oil spill from vandalized pipelines on agricultural activities is often tied to the frequency of pipes interdiction and volume of oil spilt. For instance, between 1986 and 2002, pipelines in Northern Colombia were subjected to over 900 attempted sabotage. This translates to an estimated loss of 2.5 million barrels of crude oil. The number of plantations damaged was worth over two billion dollars, also rendering hundreds of acres of land useless. Perhaps, the impact of pipelines vandalism on agricultural activities is best summarized in Ukoli (2001); he says that aftermath of pipelines vandalism often lead to pollution which in turn induces loss of farmlands, economic crops, soil fertility and poisoning of fresh and marine waters. This in turn results to massive and unquantifiable losses to farmers, fishermen, and hunters who depend on these sources for their livelihood.
Cost of life loss due to Petroleum Pipelines Vandalism

Nigeria had also recorded quite appreciable number of deaths and injuries from petroleum pipeline disasters. According to Adeniyi (2007), scooping fuel from vandalized pipelines contributed to the death of over 2,297 people in seven separate incidents. In a descriptive study conducted by Aroh et al. (2010) on petroleum pipelines vandalism in Ishiaku community, findings revealed that water from stream on the impacted sites was polluted. The people suffered localized health disorder ranging from gastroenteritis, respiratory problems to generalized skin irritation. In other instances, the leakages from vandalized pipes in most cases had resulted to explosion, fire accidents, and dearth. These include those that happened in Jesse in 1998, Aba and Warri in 2000, Lagos in 2004 & 2006. In addition to pockets of unreported deaths occasioned by pipeline incidence elsewhere, (Thomas, 1985; Phil-Eze, 2004; Yashim, 2008; Patiece, et al., 2009; Ugwuanyi, 2011).

Effiong and Etowa (2012) in their study on oil spillage costs, gas flaring costs and life expectancy rate of the Niger Delta people of Nigeria, used regression model to analyse the data. The main variables measured in the study are:

- Oil spillage costs
- Gas flaring costs
- Life expectancy rate

The life expectancy rate depended on oil spillage costs and gas flaring costs. This was represented as:

\[ LPR = b_0 + b_1 \text{OSC} + b_2 \text{GFC} + \text{te} \]

Where;

- \( b_1 - b_4 \) = regression coefficients
- \( LPR \) = Life expectancy rate
- \( b_0 \) = Alpha intercept at LPR
- \( \text{OSC} \) = Oil spillage costs
- \( \text{GFC} \) = Gas flaring cost

Their finding reveals that life expectancy rate in the Niger Delta region is greatly affected by the oil spill and gas flaring.

Theoretical Framework

This study is based on the theories of externalities. These theory emphasized the effects of unanticipated occurrences on an individual’s production/consumption function which he is not aware of; and even if he is, he has no control over. Perhaps a good example of externality is illustrated by Mashal (1920) using railway and farm yield. According to this scholar each time train passes on a rail way line across farm land, the sparkle destroys crops. The farmer at the beginning of farm season never envisaged that the railway line that passed through his farm could be a threat to crop annual yield. The railways management on its part did not factor in the train damages farmers’ crop. Thus, neither the railways management nor the farmer made provision for the destruction, since both of them never envisaged its occurrence. The farmer therefore is the absolute loser as he bears the cost of this destruction by way of reduced output. In this case, the people who dwell within that environment bear the real costs arising from the action of the vandals; i.e. fuel scarcity, pollution of the farmland, air and water, health problems, fire disaster etc. From the perspectives of those affected, these effects may be negative (pollution) or positive (scooping and selling petroleum products). However, the existence of externalities results in outcomes that are not socially optimal. Those who suffer from external costs do so involuntarily, while those who enjoy external
benefits do so at no cost, Lipsey and Chrystal (1997); Irefin and Akume (2001); Musgrave and Musgrave (2007); Todaro and Smith (2009).

**METHODOLOGY**

**The Study Area**

Rivers State is located in the South-South Geo-political zone of Nigeria. The State is located between latitudes 4° 50’ N and 6° 40’ N and longitudes 5° 00’ E and 7° 30’ E. According to Oboli (1978), it is covered with muddy creeks and swamps. The whole area of Rivers state consists of deposits of sand, clay, mud and silt brought down by the Niger. Iloeje (2007) also reported that the state is lined by sand bars, lagoons and marshes. While the interior is a low plain of between 90 and 150m and chopped into sections by north-south parallel rivers. The state is occupied by swamp forests. It is permanently occupied by brackish and tidal waters clad mainly with mangrove vegetations, however, freshwater swamp forest is found in river valleys subject to flood, some of which may be dry in the dry season.

According to the 2006 general census, Rivers state has a population of 5,198,716 and land area of about 10,378 km-s. The state has 25 local governments with its capital in Port Harcourt.

Rivers state has area of reserve (ha) of 25,000 and Area of forest plantations (ha) of 231 which is 1% of the state forest reserve. Major crops cultivated in River State are yam, cassava, maize, oil palm, banana and plantain. (Fakayode et al. 2013). The Oil and Gas producing local government area in Rivers State include; Tai, Patani, Okrika, Khana, Degema, Oyibo, Gokana and Ahoada West, (FGN Gazette, Vol. 94 (2007).

**Sources of Data**

Due to the complexity of the pipeline network and the locations of refineries in Nigeria and; in order to achieve the objectives set out for this study, data used for the study was generated through secondary sources. Data were obtained through review of relevant literatures from the information archives of the Federal Ministry of Petroleum, Ministry of Agriculture, the Pipelines Product Marketing Corporation (PPMC), the Central Bank of Nigeria (CBN), and the National Bureau of Statistics, (nbs). Others include, Nigeria National Petroleum Commission, (NNPC); Newspapers, Magazines and the Internet.

**Method of Data Analysis**

Multiple regression model was utilized to estimate the relationship between petroleum pipelines vandalism and annual farm output/fish harvest. The regression analysis was also used to assess the cost of life loss as a result of petroleum pipelines vandalism on agricultural activities. Test such as Augumented Deckey Fuller for Unit Roottest; Durbin- Watson statistics for serial correlation, t-test for independent significance of variables and F- statistics for joint significance were carried out.

**Model Specification**

The study adopted simple regression for the analysis of data. This enabled the study establish the extent to which petroleum pipelines vandalism impacted on annual farm output and annual fish harvest in the study area. This method was also used to analyse the cost of life loss as a result of pipeline vandalism on agricultural activities in the study area.

The model adopted for the impact of pipeline vandalism on annual farm output (AFO) is represented as:
AFO = b₀ + b₁ PPLV + b₂ AFPx + b₃ ARF + b₄ LLA + te  --------- (1)
where:
AFO = annual farm output
b₀ – b₄ = regression coefficient
PPLV = Petroleum Pipeline vandalism rate
AFPx = Average Fertilizer Price
ARF = Annual Rainfall
LLA = Life Loss
te = error term
For annual fish harvest (AFH):
AFH = b₀ + b₁ PPLV + b₂ ARF + b₃ LLA + te  --------- (2)
Where:
b₀ – b₃ = regression coefficient
PPLV = Petroleum Pipeline vandalism rate
ARF = Annual rainfall
LLA = Life Loss
te = error term
In the analyses of objective (i), the variables of interest include number of petroleum pipelines vandalized, lives lost, the average age of victims and life expectancy rate. Others include annual farm output and fish harvest. Cost of life loss from pipeline vandalism on agricultural activities is represented as thus:
CLL = b₀ + b₁ PPLV + b₂ LLA + b₃ Le + b₄ AG + b₅ AFO + b₆ AFH + te  -- (3)
Where:
b₀ – b₆ = regression coefficient
PPLV = Petroleum Pipeline vandalism rate
Le = Life Expectancy
LLA = Life Loss
AG = Average age of victims
AFO = Annual farm output
AFH = Annual fish harvest
te = Error term

DATA PRESENTATION AND ANALYSES
Table 1: Time series data on petroleum pipelines vandalism, (PPLV); Life loss (LLA); Annual farm output (AFO); Annual Fish harvest (AFH), Annual rainfall (ARF); Average Fertilizer price (AFP) 50kg bag
Table 1. showed the time series data on petroleum products pipelines vandalism and, the number of lives lost as a result of the act. The table also indicates the annual farm output and fish harvest during the period. To augment the factors that affect agricultural output, data on annual rainfall and average prices of fertilizer was included in the table. Both farm output and fish harvest was measured in tonnes while average annul rainfall is measured in millimeters (mm), price of fertilizer is measured in naira (₦).

Observing table 1 as presented above; literal interpretation suggests that the number of petroleum products pipelines vandalism, the number of lives lost as a result of the act, and annual rainfall does not proportionally impact the subject of interest. One would ordinarily expect that the more there is petroleum pipeline vandalism, the more likely there would be...
life loss. However, available data indicated that in 2006, out of the 2,091 cases of petroleum pipelines vandalism that took place only 410 deaths were recorded. However, 500 deaths occurred in 2001 from 381 reported cases of vandalism. This therefore implies that the number of vandalized petroleum products pipelines does not necessarily mean increase/decrease in deaths from such act. Perhaps, there are other variables that play as important role at ensuring that the casualty level in the event of pipelines interdiction was either high or low.

The same reasoning could be true of life loss from petroleum pipelines vandalism and agricultural activities (crop farming and fishing). The highest number of deaths was witnessed in 2001 with 500 deaths from 381 vandalism. During the period, farm output was 26,668 tonnes as against fish harvest of 55,450 tonnes. With less deaths from vandalism in the preceding year (20003); logically, it was expected that farm output would increase, it dropped to 23,553 tonnes. The table also indicates that in 2005, with reported 86 deaths from 1,017 interdictions, 27,644 tonnes of output was recorded. At the peak of pipelines vandalism farm output and fish harvest was 22,927, and 52,744 tonnes respectively; while at the peak of the farm output (25,522), vandalism was 381, at the peak of fish harvest (55,450), petroleum pipelines vandalism was 1,631.

During the 2005 crop season, the annual rainfall was at its peak-215.0mm; the annual farm output was 27,644 tonnes and average fish harvest stood at 50,931 tonnes. Table1 also revealed that more fish harvest was recorded with less annual rainfall and pipelines vandalism in 2001.

It is important to note that in table 1, the data for 2011 and 2012 were based on the estimate of previous year’s performance. Taking a glance at the table, it revealed that petroleum products pipelines vandalism alone cannot be responsible for life loss. It also reveals that life loss alone cannot sufficiently account for low or high output level in agricultural activities. To further establish the fitness of the literal interpretation, the combination of pipelines vandalism, life loss, annual farm output, fish harvest and annual rainfall were subjected to sensitivity test and regression analysis.

The sensitivity analysis was conducted to identify out-liers; so that when conducting the real (regression) analysis the study would have a prior knowledge of what variable is versatile and how to handle them. That is to say a combination of measure of central tendency, measure of dispansion, measure of skewness and kurtosis were jointly conducted. The sensitivity analysis also displays measure of variability (dispersion). A look at the content in table 1 shows that fish harvest is the variable with the highest mean value (50381.29) while average rainfall has the lowest mean value 176.70cm of all the observations. The maximum value of 55,450.00 also goes to the fish harvest while the variable with the minimum value is fertilizer price with only N40.00.

The coefficient of skewness is the measure of asymmetry from mean. Thus, the output data shows that all the three variables namely fish harvest; farm output and rainfall were skewed to the right. This implies that average fertilizer price was substantially felt by larger percentage of the population than in other variables of interest. It then mean that fertilizer prices has far reaching impact on output and thus impacts more on farming household in the study area.

Having conducted the aforementioned test, the study went further to check whether the test is normal- this was achieved through Jargue-Bera (test for normality). The rule of Thumb says that any value above 3 shows that the variable has normal distribution. In the result only annual rainfall (4.37) met the requirement by the rule of Thumb. This implies that of all the variables average rainfall was beneficial to fish harvest and farm output.

In the analysis of specific objective (i) which sought to analyse the impact of petroleum pipeline vandalism on farm output, the explanatory variables considered were,
average fish harvest, average fertilizer price, pipelines vandalism, life loss and average annual rainfall (regressors). The farm output is the dependent variable.

\[
\text{Farm output (AFO)} = \alpha_0 + \alpha_1 \text{AFPx} + \alpha_2 \text{LL} + \alpha_3 \text{PPLV} + \alpha_4 \text{ARF} + u
\]

\[
\begin{align*}
\alpha_0 &= 111526.21 \\
\alpha_1 &= 3.48 \\
\alpha_2 &= 15.08 \\
\alpha_3 &= 0.505 \\
\alpha_4 &= 14.19
\end{align*}
\]

\[
\text{Farm output (AFO)} = 11526.21 + 3.48\text{AFPx} - 0.505\text{LL} + 15.08\text{PPLV} + 14.19\text{ARF}
\]

Note: The standard error is in parenthesis.

The result shows that by the constant 11526.21, even if all the determinants of annual farm output were taken to be zero, there would always be an autonomous farm output. The model also revealed a Durbin-Watson statistic (DWS) of 2.031 signifying the absence of first order serial correlation in the error term. Also the assumption of constancy of the variance of the sum of error is established. The White Heteroscedasticity (WH) test of 0.98 revealed that the error term is homoscedastic with a constant variable.

The R²=0.74 indicating that up to 74% of variation in the average farm output was explained by the regressors and the remaining 26% was taken care of by the error term. The standard error of the regression was 2950.411, the Akaike information criterion was 29.02 and the Schwarz criterion was 19.27. Both the Akaike and Schwarz criterion displayed desirable results because they are low (note that the criterion states that the lower or negative the value, the better is the fit of the regression). To ascertain the adequacy of the model, the study determined the joint significance of the variables using F-Statistics which reveals 11.23 level of adequacy of the model as this is significant at 1%, it is an indication of goodness of fit of the equation. The standard error of the regression output is robust.

The coefficient on average fertilizer price is 3.47 with a positive value but inconsistent with theoretical postulates that the relationship between fertilizer price and farm output is equa-proportional (inverse relations). In order words, one naira increase in fertilizer price would lead to 3.48 tonnes reduction in farm output in the study area. The t-value (independent test) of average fertilizer price shows a highly statistical significance of fertilizer price on farm output in the study area.

The coefficient of pipeline vandalism which is the major variable of interest has a smaller magnitude but consistent with the a priori sign; implying that of petroleum pipelines vandalism directly impacted the farming population. That is to say, 1 litre of product spill from vandalized pipelines results to 50 tonnes reduction in farm output.

In the same vain, the coefficient magnitude of life loss is highly significant at 1% level. This means that 1 life loss in the study area leads to 1500 tonnes lost in farm output. The t-statistics is highly significant at 1% level with a very low probability value. This implies that any policy geared towards boosting agricultural output should take care of human factor development particularly where food security is at stake.

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The average rainfall has a higher magnitude coefficient but insignificant t-value. More so, the direction of the relationship between average rainfall, average farm output is upward. In other words, 1mm increase in the average rainfall will lead to 14 tonnes increase in the average farm output.

Model Specification Test: The test was conducted to check specification bias. It was conducted using the Ramsey "RESET" Test, where:

RE = regression
The Ramsey "RESET" was conducted to investigate whether there is specification bias in the model. The test specified that if the probability of value is less than 0.05% you reject the specified form of the initial and conclude that the model is not truly linear. The result shows that the probability value of t-statistics, F-statistics and the likelihood ratio are all less than 0.05 leading to rejection of null hypothesis due to mis-specification bias in the model. Since the probability value of the aforementioned variables was less than 0.05 we therefore conclude that the model is not linear, it is rather in the distributed lag form. Note that the rule of Thumb says that if $\alpha \geq 0.05$, do not reject the null hypothesis.

The specific objective (ii), sought to analyse the impact of petroleum pipelines vandalism on annual fish harvest (AFH). The AFH was regressed on pipeline vandalism (PPLV), Life loss (LL), average fertilizer price (AFPx) annual rainfall (ARF). Petroleum Pipelines Vandalism and Fish Harvest thus calculated as:

\[
\text{Annual Fish Harvest (AFH)} = \beta_0 + \beta_1 \text{PPLV} + \beta_2 \text{LL} + \beta_3 \text{AFPx} + \beta_4 \text{ARF}
\]

The regression output shows that the entire variables taken together have significant t-value apart from the main variable of interest "PPLV" which is also consistent with a priori expectation. F-statistics of joint significance of the coefficient shows that the model is adequate.

Note that despite the robustness of standard errors. The Durbin-Watson (DW) statistics is less than 2 signifying a slight presence of first order serial correlation in the error term. At this juncture, the study tackled this ugly trend by adopting a number of tests to detect the real problem and propose remedy.

First of all, Breusch-Godfrey serial correlation Lagrange multiplier (LM) test was conducted. The probability value of F-statistics is equal to 0.95 which is greater than the critical value of 5% leading to acceptance of null hypothesis of presence of first order serial correlation in the specified model. Another test (Unit Root test) was conducted to address the problem. The result is presented in table 2.
Table 2: Stationary test

<table>
<thead>
<tr>
<th>Variable</th>
<th>AFH</th>
<th>ADF</th>
<th>Critical value</th>
<th>Order of integration</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFH</td>
<td>-2.91</td>
<td>-2.64</td>
<td>-2.64</td>
<td>I(1)</td>
<td>10%</td>
</tr>
<tr>
<td>AFP</td>
<td>-4.77</td>
<td>-3.78</td>
<td>-3.78</td>
<td>I(1)</td>
<td>1%</td>
</tr>
<tr>
<td>AFO</td>
<td>-2.99</td>
<td>-2.64</td>
<td>-2.64</td>
<td>I(0)</td>
<td>5%</td>
</tr>
<tr>
<td>ARF</td>
<td>-2.91</td>
<td>-2.64</td>
<td>-2.64</td>
<td>I(0)</td>
<td>10%</td>
</tr>
<tr>
<td>PPLV</td>
<td>-6.17</td>
<td>-3.00</td>
<td>-3.00</td>
<td>I(1)</td>
<td>5%</td>
</tr>
<tr>
<td>LLA</td>
<td>-3.65</td>
<td>-3.17</td>
<td>-3.17</td>
<td>I(1)</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: Author’s Computation, (2013).

Table 2 shows the test of stationary variable of the model. A look at the table shows that of all the six variables in the model, only two pass the test at level while the remaining four achieve stationary at first difference. This is an indication of the existence of long run relationship between average fish harvest and other variable in the model. Recall that Rule of Thumb says if absolute value of ADF is greater than critical value in absolute term at either 1%, 10%, or 5%, we conclude that the variable has unit root.

The constant 41007.38 indicates that even if other determinants of fish harvest are taken to be zero, there must always be some autonomous fishing harvesting of 41007.38 tonnes of fish. The coefficient of the second variable PPLV indicates that for any litre of crude/refine products spilled from vandalized pipeline there would be 1.22 tonnes reduction in fish harvest. The significance level of the coefficient is consistent with theoretical postulate that there is inverse relationship between PPLV and AFH. In other words, any oil spill as result of petroleum pipelines vandalism impacts on fish production. By implication, pipeline vandalism not only affects production of crude/refine oil but also food security, income, employment of the people in the study in particular and Nigeria in general.

The coefficient on LLA (10.02) has wider magnitude although contrary to expected sign. Ceteris Paribus, one life loss leads to the loss of 1000 tonnes of fish over the study period. By implication life loss as a result of PPLV has a negative effect on fish production. This through the multipliers affects income of farmers, employment, tax revenue and the GDP through backward linkages. The variable has high statistical significance t-test at 1% level.

The coefficient on average fertilizer price 2.38 has a negative sign although highly significant at 1% level with t-value of 3.42. Ceteris paribus N1.00 increase in the price of fertilizer would lead to 2.38 tonnes reduction in fish harvest. Price being a major determinant of demand has been shown in economic literature to have an inverse relationship with production. Fertilizer is an input and any increase in the price of fertilizer affects production. Coefficient on average rainfall (27.63) is significant with required sign. In the same line of thinking, 1mm increase in rainfall leads to 28 tonnes increase in fish harvest and vice-versa. The t independent test of this variable is significant at 10% level. Implying, an increase in rainfall boost water level which is conducive for fish harvest.

R² = 0.71 shows that up to 71% systematic variation in the average fish harvest is explained by LL, PPLV, AFX, and ARO, over the study period. The remaining 19% was explained by the error term.

The F-statistics of joint significance coefficient estimate indicate adequacy of the model. The DW statistics is equal to 1.8 revealing slight presence of first order serial
correlation which was taken off.

The kurtosis result indicates that PPLV is 2.62. Applying the rule of Thumb, if kurtosis result is greater than 3, the distribution is Peak and if it is less than 3, it is somewhat flat. Therefore PPLV result in this study is 2.62 which could be taken to be up to 3 hence, the distribution is peak.

**Discussion of Findings**

Nigeria has witnessed considerable decline in both foreign exchange earning and agricultural output. This is often attributed to among other things pipelines vandalism It is common to hear government officials hinging power disruption on vandalism; it is also common to hear people from oil producing states complain about environmental pollution. The hues and cries on pipelines vandalism was so loud that it calls for attention.

The central issue and perhaps the most important is the determination of the real cost of petroleum pipelines vandalism in Rivers state, particularly on agricultural activities.

Subjecting petroleum pipelines vandalism and farm output to regressive analysis using secondary data. The farm output data was for the entire state (Rivers state) and also measured in tones. The result of the analysis shows that $R^2$ explained 74% of the variables in the model while 26% could be attributed to occurrence outside the model which is explained by some exogenous variable. This implies that the reduction in annual farm output could not be attributed to pipelines vandalism alone. Other factors may have contributed to that, among which include but not excluded to, previous years harvest, rainfall, government policy, rural urban migration, demographic characteristics, among others.

In order to test whether there is correlation between the variables of interest, Durbin-Watson statistics revealed 2.04 level of significance - this signified the absence of first order serial correlation in the model. Hence we accepted the study’s null hypothesis which says that there is no significant relationship between petroleum pipelines vandalism and annual farm output.

Adopting the same pattern as in the analysis of farm output; the fish harvest which is represented by \( AFH = \beta_0 + \beta_1PPLV + \beta_2LL + \beta_3AFH + \beta_4ARF + te \), the significance level of $R^2$ was 0.71. This also implies that fish harvest in the study areas is explained by 71%. While 29% was explained by the error term. This also implies that fish harvest was explained by a combination of four variables (i.e. PPLV, Rainfall, Fertilizer price, and Life Loss). The computation of adjusted $R^2$ (0.64) indicates a systematic variation in fish harvest. This implies that 64% of the variation in fish harvest was explained by the four variables mentioned above while the remaining 36% was explained by other exogenous factors, this fact shows that pipelines vandalism could not possibly be the only factor that brings to the dwindling of fish harvest as the data from the state explained. Again since the Durbin-Watson statistics which is at 1.8 revealed the absence of fist order serial correlation in the error term, vandalism could not be said to have considerably contributed to the fall in fish harvest. Thus the study accepts the null hypothesis which suggests that there is no significant relationship between petroleum pipelines vandalism and fish harvest in the study area.

Theoretically, it would be assumed that the more there is loss of life resulting from pipelines vandalism, the less there would be farmers and fishermen; hence decrease in agricultural output. However, scientific analysis proved that life loss significant at 5% would not significantly impact on agricultural output. This implies that there are other variables of interest that affects agricultural activities outside of life loss.

It is obvious that petroleum pipelines vandalism has considerable impacts on the socio-economic wellbeing of people however, the impacts were somehow exaggerated. The exaggerations have dire consequence on the communities as policy makers would be swayed
by sentiments in formulating policies. In a situation where every pipelines rupture is attributed to vandals by both the government and multinational oil companies, it completely seal or under score the fact that pipe corrosion, old age, and induced excavation could lead to pipelines rupture; which could also lead to the spill of the product there in; what this portends is, having a mind set that every pipelines rupture is an act of vandals; the real culprits are free. In freeing the culprit, victims’ loose compensation, clearing polluted area would not be cleared and above all the polluted land and or river remain idle while it last.

In as much as vandalism induced oil spillage and or fire disasters affects annual farm output and fish harvest, there are other factors that has equal or more devastating effect on both variables, i.e. rainfall, fertilizer price, previous years harvest, government policies, crisis etc. the dangers here is that at any point in time annual farm output and fish harvest dwindled, and probably coinciding with a major pipelines interdiction, authorities would be erroneously led into believing that the low productivity was a result of pipelines vandalism. Even though, it may have been caused by none distribution of fertilizers or man made erosion or even poor policy implementation. The emphasis here is that some group of individuals, corporate bodies and even government official were using petroleum pipelines vandalism as a smoke screen.

Summary

From the onset, this study made it clear that the approaches adopted by previous authors in analyzing the impact of pipelines vandalism were biased towards the nine oil producing states in particular and Nigeria in general. This implies that the causes and effects of the phenomenon were treated the same in these states and the nation at large. This study concentrated on a major oil producing state, with a view to ascertaining the magnitude of the loss suffered by the state. Specific objective one and two which are central to the study cumulatively sought to determine the impact of vandalism on the annual farm output per hectare and fish harvest. To this effect, findings revealed that though pipelines vandalism impacted on annual farm output and fish harvest, the impact was not as significant as most studies portrays. The findings revealed that there are super-imposing factors that could have led to the decrease in the productivity of the variables under study.

It is pertinent to note that though crop farming and fish harvesting were adversely impacted upon from the activities of petroleum pipelines vandals; the impacts were more on fishing communities. It is important to add that polluted rivers impacted not only the fishing population but the entire communities.

The study revealed that death occasioned by pipelines vandalism induced disasters substantially impacts on farming/fishing population; though literatures revealed that with modern technology, population plays minimal role in level of output. This implies that though the aftermath of petroleum pipeline vandalism induced oil spillage and/or explosion caused considerable loss of lives and properties in the study areas, however loss of life does not necessary translate to decrease in agricultural activities.

Conclusion

Major variables of interest of the study are farmland and rivers. The impact of petroleum pipelines vandalism have considerable impact on farm output and fish harvest however, the impact is often exaggerated perhaps to sway policy marker as well as the public

Recommendation

Based on the findings of the study, the following recommendations are made:
- Government in partnership with the Multination Oil Companies (MNOCs) should initiate a comprehensive poverty alleviation program devoid of political sentiments with a view to tackling the economic problems of the people in the oil bearing communities. This would be achieved by involving community members in the formulation and implementation of program that has bearing on them.

- Government should as a matter of urgency educate the farmers/fishermen on modern farming and fishing techniques; in addition subsidize farm inputs. This would be achieved by training and re-training of more extension workers, establishment of agricultural banks in local government areas.

- Both the state and federal government should mount public enlightenment program on the consequences of pipelines vandalism on the environment. To achieve this government/agencies concerned should use local people/town Criers, Clergymen/women, Imams, respected individual to educate people on the dangers of pipelines vandalism. This would be more effective when local dialect is used in disseminating information.

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INSECURITY, TERRORISM AND NATIONAL DEVELOPMENT IN NIGERIA

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Introduction

One of the salient tasks of the newly independent states including Nigeria, is how to mobilize the available resources in the face of the challenges confronting them to improve the socio-economic wellbeing of the mass of the people. Little wonder that these countries introduce policy measures that are capable of engendering development. Yet these development efforts are elusive because of the prevalence of violence, conflicts, tension, crimes and criminalities engendered by bad governance, injustice, corruption and the nature and character of Nigerian politics among others. We do not need the esoteric wisdom of the ‘wise men’ to know that Nigeria is evidently at a critical phase in its match to political and economic development. Since the return to democratic governance close to two decades, the spate of bombing, killing and act of arson particularly in the north east of the country has made many asking the pertinent question; whether the Nigerian state lacks the capacity and political will to protect her citizenry. As if that was not enough, the pervasive vandalization of pipe lines, destruction of public properties, and kidnapping of expatriates in the south south zone of Nigeria is not only disturbing but worrisome. Further more, the agitation for the State of Biafra, cultism and kidnapping for ransom and the state security response has created an atmosphere of terror and fear. And the south west is not left out as there are cases of armed robberies in the day and in the night, kidnapping of wealthy individuals for ransom and of course killing for ritual purposes. All these, in part, have been sources of insecurity and violence in the country.

Nigeria is a paradox. There is hardly any thing that we need as a country which can make the Nigerian state great that we lack. The country is endowed with vast and fertile land, abundant water resources, good climate that supports varieties of crops, enormous deposits of quality mineral resources, beautiful environment for tourism and of course large population. Yet the abundant resources have not been exploited to the greatest advantage of the people. So the country is still poor. This captures the penetrating view of Nwolise (2006:348), as he notes that:

Nigeria is a beautiful country, one of the best in the world. It has good climate with varying weather of hot and cold, and varying seasons of dry and wet.... The vegetation is fine with varying plants-grasses and trees like iroko, mahogany, palm, rubber and kolanut. The country has vast mineral resources of varied types like petroleum, gas and others.

The stark truth is that Nwolise’s thesis suggests that Nigeria is enormously endowed with all manner of natural resources. The massive resources notwithstanding, the country is
deeply fraught with the challenges of satisfying the political and economic aspirations of her citizens.

It is mind-boggling to quickly note that despite the huge budgetary allocation to security, and of course the unaccounted for security votes of state governors, the police as well as other security agencies; fear, terror which relate to kidnapping, armed robbery, cultism, vandalism, killing and other violent crimes are unabated with the attendant grave consequences on national development. The objective of this study is to delineate the sources of insecurity and its implications on national development. To achieve this, the study is structured into five parts, part one provides conceptual interpretation of national security, terrorism and national development. Part two examines the factors that propel insecurity; while the third part of the work delineates the implications of insecurity, terrorism on national development. Part four interrogates issues that can engender national development. The final aspect of the study is the concluding remarks.

Conceptual Clarifications

One cannot be talking of progress and development when there is no security. This will amount to a mere wishful thinking. In other words, security is the first precondition for peace and development. This is the reason why states, no matter the size, strong or weak, technologically backward or advanced often pursue with vigour the attainment of the core values that relates to among others the security of the country. ‘‘A state that lacks the basic capabilities-political, economic, industrial and technological- to ensure the security of its values and citizens is vulnerable to threats’’ (katsina, 2011:23). Such threats-external or internal can undermine its development.

It is instructive to note that, for a long time ‘security’ has been tenaciously tied to the apron strings of the military. This relates to acquisition of sophisticated weapons, training and re-training of armed personnel. As Buzan 1983 puts it ‘‘the military factor has dominated the concept of security (Quoted in Nwolise,2006:349). However, the contemporary thinking about security is all embracing and goes beyond military capability. Sola Ogunbanwo rightly encapsulates that:

*Security is more than military security or security from external attacks. For many of the four billion inhabitants in the developing countries, security is conceived as the basic level of the struggle for survival. Therefore, in order to provide an integrated African security assessment, the non-military dimensions of security should be added. Henceforth, African security as a concept should be applied in its broadest sense to include economic security, social security, environment security, the equality of life security and technological security (Quoted in Nwolise 2006:349-350).*

A false sense of security sets in when there is low production, low per capita income, acute food shortage, chronic unemployment, widespread illiteracy, decrepit public infrastructure etc.

Terrorism

There is no word, in contemporary time, in social literature that has received much attention as terrorism. Terrorism represents extraordinary and extreme violence. The promotion of extreme violence in Nigeria, particularly since the return to democratic governance by religious fundamentalists, and ethnic militancy has rocked the nation state to its foundation. Terrorism is the deliberate murder, killing and maiming of the innocent in
order to instill fear and to achieve a particular goal. This corroborates the opinion of Imobighe (2006:19) as he observes that:

*Terrorism is the indiscriminate use of different shades of violence, ranging from hostage taking, assassination, to the use of explosives and bombs for the management of hostile relationship in which the targets is not limited to the main combatants, but inclusive of all those that with ancillary relationship with the target enemy, and in which the overall aim is to impose one’s will on the latter.*

It is clear from the array of definitions that terrorism is the promotion of violence. It is a phenomenon that is well coordinated with a target.

### National Development

This is the over all development of collective socio-economic, political as well as religious advancement of a country or a nation (Abe, Lawal, 2011).

### Sources of Insecurity in Contemporary Nigeria

**Ethnic and Religious riots**

The forces of identity such as religion and ethnicity have deepened the existing cleavages in a divided country like Nigeria. The ethnic and religious attachments of Nigerians are so strong that any little threat perceived or imagined leads to unexpected violence. We should be reminded that the January and July 1996 coups and the civil war of 1967-1970 were the result of the destructive dynamics of the ethno-regional contradictions that had developed under colonial rule (Agoha, 2003:4 cited in Oni, 2015:2). Since the re-birth of democratic governance , ethno-religious related crises have been on the increase.

On June 8, 2004, seventeen(17) people were murdered and a number of worship centres vandalized in a clash between some Christians and muslims in Numan town, Adamawa State. The clash was the climax of two(2) weeks of tense relation between the Bachawa Christians and the local Muslims community over the location of the town central mosque (Murray and Ajose, 2004). The fracas engendered by the freely use of local guns, cutlasses, knives, and other dangerous weapons even on innocent people created atmosphere of fear and insecurity.

What ordinarily supposed to be an annual festival in Sagamu, Ogun state on 17th July 1999 was hijacked by the ‘area boys’ and resulted in a clash between the Yoruba and the Hausa in the area. Several lives were lost and properties worth millions of naira were destroyed. The introduction of Sharia law in March 2000 by the kadunaState government also sparked off violence. The avoidable violence left many dead and properties worth several millions of naira destroyed. The Kaduna religious conflict instigated a reprisal moves by the Igbo in the eastern parts of the country, who equally attacked the Hausa for inflicting injury on their kith and kin in the north (Ojo, 2006, 374-375)

**Terrorism**

The terror unleashed on the Nigerian state in contemporary times by the Boko Haram, except the civil war 1967-1970 has caused the country serious damage. Scholars generally agreed that what appeared as a small group as an Islamic set, suddenly became a monster that terrorizes the north-east parts of the country. It is problematic to discuss the goal and
direction of the group. The reason is that it lacks a clearly articulated and well defined objectives other than that it is averse to western education.

This is put in proper perspective as Shehu Sani cited in Kastina (2001:29) writing on the evolution and circumstances that led to the transformation of the organization, opines that:

The group emanated from an orthodox teaching slightly resembling that of the Taliban in Afghanistan and Pakistan their school of thought considers anything western as an aberration or completely unislamic. The group viewed the western influence on Islamic society as the basis of the religion’s weakness. Hence their declaration that western education and indeed all western institution is infidel and as such must be avoided by muslims.

We should be reminded that the Federal Republic of Nigeria is a secular state. Therefore situating this within the context of the nation state is another debate and beyond the scope of this study. Yet it is difficult to divorce the group’s radicalization from the multi facet contradictions in the troubled nation state. The inept political leadership, social injustice, deprivation, marginalization, poverty, neglect, corruption, wide spread illiteracy and other forms of ills plaguing the society represent in part the animosity, acrimony and violence in the country.

Studies have shown that the sect has been implicated in several deadly attacks that have killed many innocent citizens, police officers, soldiers, politicians, Islamic clerics, pastors and church members. On April 15, 2011, the group claimed responsibility for the bombing of the Maidu guri office of the Independent Electoral commission (INEC); On June 17, 2011, it also claimed responsibility for a bombing attack on the Police Force Headquarters in Abuja. Similarly, the sect orchestrated a car bomb attack on the United Nations Headquarters in Abuja on August 26, 2011 where 24 people were murdered and well over 100 maimed.

**Political Assassination**

Democracy as a form of government is gaining more currency in the world today. The reason is not very far from the general perception by politicians, opinion leaders, academia, professionals etc that it is the only civilized model of human governance as it guarantees popular participation, gives ample opportunities for free and fair elections, and provides platform for smooth transition among others. These are common features in societies where democracy is consolidated.

The Nigeria political space presents a peculiar character. The existing institutions and structures are weak and thus lack the much needed muscle to withstand undue pressure in the system. This is reinforced by the attitudes of the political elites that are pretentious and tempestuous. Politics is reduced to zero-sum game and everything is employed; democratic and non democratic to be at the forefront in the power equation. Thus, rather than provide the milieu for popular participation and accountability, democratic practice in Nigeria has become a liability- the source of instability, decay, thuggery, brigandage, unmediated and unrestrained violence (Ogundiya, and Baba, 2005:364). The struggle for power is total and deadly, while the mass of the people are alienated and turned to mere on lookers in the affairs of the state.

Ordinarily, elections are meant to legitimize the democratic process especially when conducted according to the electoral law and other key principles. Strict adherent to the rule of the game is sine qua non to good electoral process in Nigeria, the win at all cost syndrom makes contestations to be fierce, ruthless and deadly. Therefore politicians see elections as mere rituals to legitimize the process. The result is the kidnapping, killing, and other forms of violence prevalence in the Nigerian politics. Since the return to democratic governance in 1999, the nation-state has been characterized by varying degree of intra and inter party
squabbles which relate to political assassination of political rivals and perceived or imagined enemies. A chronology of some politically related murder since 1999.

i) On 23rd December, 2002, unknown gunmen killed Chief Bola Ige, Attorney General and Minister of Justice under President Olusegun Obasanjo in Ibadan (Newswatch, 5th October, 2009).

ii) Kwara State Chairman of the Peoples’ Democratic Party (PDP) was killed.

iii) The Gubernatorial candidate of (PDP) Ogun state, Dele Arojo was murdered.

iv) The Vice Chairman of the All Nigeria People party (ANPP), Harry Marshal was killed (Roberts and Obiota, 2005).

v) The National Vice Chairman of PDP, A.K, Dikibo, was murdered in cold blood in 2004 while traveling from Port Hacourt to Asaba to attend a meeting (News watch, October 5, 2009).

vi) The Chairman, Kogi State Independent Electoral commission, (SIEC) was gunned down in Kabba in 2004 (Newswatch October, 5 2009).

vii) On July 27, 2006, Funsho Williams, a frontline Lagos politicians was mowed down by killers in his bedroom at the Dolphin Estate, Ikoyi, Lagos (News watch, October 5, 2009).

viii) Ayodeji Daramola, a PDP governorship aspirant in Ekiti state was killed (News watch, October 5, 2009).

ix) On September 20, 2009, Bayo Oho, Assistant News Editor of the Guardian Newspapers was brutally murdered in his residence at Odukoya Estate, Egbeda, lagos (News watch October 5, 2009).

Implication of Insecurity, terrorism on Nigeria’s Development

We must understand that the notion of politics in Nigeria which has transformed and since remained the struggle to control the affairs of the state by all available mostly dubious and violent means cannot but generate tension, acrimony and violence. Those in the corridor of power employ all manner of tactics to remain in power while the oppositions re-strategize even if by violent means to also have access to the ‘national cake’. In the prevailing circumstance, security of the politicians more than anything else, not the least development, becomes the main preoccupation of those in government (Uroh, 1998:15).

A very sound and relevant question we can ask is: Is the Nigerian state capable of protecting her citizens Albeit, scholars generally agreed that conflicts are common to all social relations and of course, in a pluralistic country like Nigeria deeply divided along ethnic, religious and cultural cleavages. Given the spate of political assassination of prominent politicians, business men, women and journalists, one can be tempted to say that life is too cheap in Nigeria. The central concern of any development project is how to make human beings lead a better life (Uroh, 1998:3). Is tangible national development feasible in an insecure environment? Is development attainable in a country where influential politicians and business men are eliminated with reckless abandon There is development when people pursue objectives they have set by themselves “in their own resources Ake, 1989 (Cited in Uroh 1998). Where people live in fear and there is a general feeling of insecurity, is development feasible?. Added to this is that successive governments particularly since the re-birth of democratic governance in 1999, have introduced a number of policy measures to enhance the living conditions of the people. Some of the programmes include:

i) Agricultural and Rural Transformation Programmes - (ARTP) – 2000


iii) Better life for Rural Women (BLRW)
iv) National Directorate of Employment (NDE)
v) Family Economic Advancement Programme (FEAP)
vi) Family Support Programme (FSP)
vii) National Poverty Eradication Programme (NAPEP)
viii) Subsidy Removal Empowerment Programme (SURE-P)

The stark truth is that these programmes are designed to impact meaningfully on the lives of the citizenry. Yet our argument can still be situated within the context of the central issue of politics in Nigeria. Since the aroma of power rather than quality governance has become the central attraction to politics, the programmes are turned to political jamborees by politicians with little or no impact on the wellbeing of the people. Little wonder that armed banditry, stealing, violent crimes and a host of others engendered by joblessness, widespread poverty and ignorance have become the order of the moment in the country.

The state of insecurity that relates to the deadly activities of militants and the terrorists have grave consequences on the ability of the government to mobilize available resources to improve the socio-economic well being of the people. For instance, the bombing and vandalization of oil installations have resulted in a reduction of the earnings from oil. Both the Nigerian and foreign oil workers are forced to operate in a condition of terror, fear and psychological disequilibrium. The interruption in crude oil production has had negative consequences on the government earnings. Resources meant for other development projects are diverted to rebuilding the structures vandalized by the militants and terrorists. For instance, the Kaduna State government paid $32,716,000 as compensation to victims of the riots in the state in 2001 (Quoted in Iheanacho, 2013). Our argument is that well over one decade after the return to democratic governance, political assassination, bombing of public institutions, vandalisation of oil pipeline combine to impact negatively on national development. Thus the varied programmes introduced by government are yet to translate into appreciate or visible indent of success.

On a general note, and as mentioned elsewhere in this paper, the notion of democracy here is just to get into power and retain same by all means. Our line of argument is that the style of governance since 1999 is emblematic of the preceding military authoritarianism which is repressive and capable of propelling insecurity. This reinforces what Hutchful (1998) described as security hazard in many African states. He maintained that “the use of governance and legitimate force to subjugate fellow citizen as the common factor of insecurity in Africa”. The avalanche of protests, riots, and violent demonstration during the military rule particularly during the Babangida and Abacha’s military regimes was a response to the prolonged oppressive and repressive military dictatorship. Therefore whether military or civil government, energies are dissipated on holding onto power indefinitely, while issue of national development in terms of improving the living condition of the people as well as mobilizing the available state resources for the security and stability of the state is secondary.

Path towards National Development.

We argue that for there to be development in Nigeria, there is the urgent need for attitudinal change of the political elite and Nigerians towards politics. The use of state power to play one group, section and ethnic group against the other cannot oil the engine of development. Such moves would only create tension and deprivation in the country. The politics of desperation, intolerance, winners take all and ruthlessness among political parties, party gladiators and their foot soldiers can neither promote democracy, fight insecurity nor engender development. In the same perspective, the deadly struggle for public positions which has become a permanent feature in the political space is capable of heightening
insecurity and to that extent stultify national development. According to Dapo Fafowora (cited in Osaghae 2015:16-17):

But the seemingly unending political crises in Nigeria may be attributed to this ethnic diversity and the failure of the Nigerian political system to contain the fissiparous and centrifugal tendencies of these ethnic groups as they jostle for power among themselves. Nigeria, particularly under the long and politically debilitating period of military rule, has been run as a quasi feudal system, or a medieval autocracy in which aspirations of the various ethnic groups have been ignored. The ruling national elite in Nigeria is ethnically stratified. It is not based on consensus or sharing of value and it tends to be contemptuous of the demand of the ethnic groups for openness, fair competition, local autonomy, and accountability. In a setting Nigeria’s cultural pluralism, these are values that are absolutely necessary to provide a level playing ground for all the various ethnic groups.

But can Adam Smith’s unseen (economics) hands be replicated in Nigeria’s culture pluralism? In Nigeria, the political hands are too visible and tend to give some ethnic groups undue political and economic advantage over the others. It is this situation that creates political tension in Nigeria.

We must therefore play down ethnicity as it is a factor of division and distraction.

As mentioned elsewhere in this paper, the politics of exclusiveness that tends to alienate the people from governance often deny them of the dividend of the newly earned democracy. According to Maduagwu cited in Omeje and Emina (2010:58):

It is a politics of Big-men who are a considerable distance from the ordinary people, politics of no accountability, transparency and responsibility. In the type of monopolistic politics, there is little or no time for the governed, when the governed, the ordinary people are remembered, a not well thought of system is put in place..... at the end, the beneficiaries of the system are the same Big men the political system is up for.

The widespread poverty in the country can only be addressed when there is a genuine commitment on the part of the decision makers. ‘Today, many of our leaders are billionaires, while the vast majority of Nigerians are living in poverty. You do not need to search for statistics from the United Nations that large numbers of Nigerians are living in poverty’ (Soludo, 2016,14). Therefore corruption must be thoroughly fought while the various poverty alleviation policies of government should be reviewed to meet the current economic reality. Beyond this, the mass of the people should be at the centre of the programme.

Unemployment in Nigeria in contemporary times is alarming and worrisome. The worsening joblessness has aggravated violent crimes and criminalities as unemployed youths have been easy preys to cult activities and criminal gangs recruited by politicians to disrupt elections or eliminate perceived or imagined enemies. To forestall this, a major agenda of urgent attention is the creation of jobs for the teeming unemployed graduates that are roaming the streets. In truth, government cannot provide jobs for all her citizens, thus, in addition to job creation, enabling environment is imperative and to engender national development.

Concluding Remarks

Nigeria a post colonial state is enmeshed in series of contradictions. The paper revealed that the escalating incidence of terrorism, violent armed robberies, ethnic and
religious riots to mention but a few as major sources of insecurity are threats to national development.

The paper noted that quality governance is necessary which relates to accountability, transparency, and responsibility in the conduct of government business. To this end, application of the rule of law should be the guiding principles in the allocation of state resources. In addition, basic infrastructure namely, good roads, electricity, potable water, hospitals, qualitative education etc should be provided in order to restore government confidence on the people. This will go a long way in creating vibrant and congenial environment for the people to carry out their businesses and other means of livelihood.

Relatedly, we must quickly understand that no government no matter how benevolent and whatever the level of her economic prosperity can provide jobs for all her citizens. Government has to invest on critical areas like security, issues of education, environment, health, agriculture etc. Therefore creating jobs is just one of the many pressing demands on government. Yet government must fix the economy in order to reduce the number of jobs seekers roaming the streets.

There is the need for attitudinal change. This relates to the attitude of the political elite towards politics. In the same vein, the country is in dire need of a national orientation at all levels of governance to enable the people cultivate positive attitude towards public institutions. Politics is a service to the state and should not be total, fierce and a do or die. In sum, the people must see their country as first and not sectional or tribal sentiment can strength a sense of ownership of the Nigerian state.
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THE ROLE OF EDUCATION IN NATIONAL DEVELOPMENT IN NIGERIA

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ABSTRACT
This study stresses the contribution of education to national development in Nigeria. It emphasizes the fact that there is no any nation in the universe that can develop more than its educational achievements. Education is life because it is functionally necessary in conducting a normal life and it is moral regeneration and revival of the people in any given society. Therefore, public provision of compulsory education is as provision of any public good. This explains why the world leaders pay serious attention to education as mechanism of introducing nations into the world of science and technology for human advancement in terms of living conditions and development of the environment. It further reveals the important role that education plays in national development. However, despite the development that has been attained in Nigeria through education, Nigeria much still need to be done in order to accomplish the desired national development from educational sector. The study concluded by recommending that there should be strong political will among the political leaders to ensure continuity of functional educational policies. Education should be a multilateral affairs and responsibility of all the tiers of government. Government should embark on a strategic reform on the funding of educational sector.

Keywords: Education, National Development, Nigeria, Role

Introduction
Education is a vital sector in any given nation. It is a major investment in human capital development and this assertion confirms the view of the world leaders of coming up with education as one of the targets of the Millennium Development Goals (MDGs).

According to Amin (2006) and Rigg (2008), they assert that the Millennium Development Goals (MDGs) refers to eight goals for development adopted by the world leaders at the United Nations to address problems affecting the world, such as poverty, women empowerment, education, health, environmental degradation and child mortality with the aim of bringing development through improving people’s social and economic conditions, more especially in the world’s poorest nations.

In a related development, Uwadia (2010) and Amaele (2011) assert that education is a process by which an individual acquires the many physical and social capabilities demanded by the society in which man or woman is born into to function. He further asserts that education is to a nation what the mind is to the body. Thus, education is the single most significant complex of the social control tools for sustainable development is found in educational system either formal or informal. Thus, education is the total development of the individual child through acceptable methods and techniques according to his or her abilities
and interests to meet up with the needs of the society and for the individual to take his or her rightful place and contribute equally to the enhancement of the society for sustainable development. Similarly, in his opinion, Obasanjo (2012) states that education must foster in the individual those values which make for good citizenship such as honesty, selflessness, tolerance, dedication, hard work, personal integrity, all of which provide the rich soil from which good leadership is produced.

Therefore, it is very crucial that the state of education in Nigeria need to be a national discourse since it has significant role on the nation’s moral, civic, cultural, socio-economic and political sustainability require for development. In addition, in Nigeria context, the educational sector has contributed immensely to national development in different areas such as agriculture, political system, medicine, engineering, communication among others. Thus it is vital that educational sector be granted proper funding in Nigeria in order to harness all its abundant resources for national development, since education is the life of any nation in the universe.

Statement of the Research Problem

Education plays a critical role in long term productivity and growth at both micro and macro levels in any nation. Adepoju and Fabiyi (2008) and Olaniyan and Obadara (2008) opine that education is the vital instrument for social and economic mobility at the personal level and an instrument for transformation of society at the national level. It also remains a social process in capacity building and maintenance of society, because it is a weapon for acquiring skills, relevant knowledge and habits for surviving in the changing world. Hence, education is a foundation and the necessary ingredient for development upon which all other levels of development are built on in any nation.

Nigeria is Africa’s most populous country with population of about 150 million and more than one-fifth of the continent’s total population (World Bank, 2008). In his view, Komolafe (2007) asserts that findings from an ongoing educational sector analysis confirm the poor state of education in Nigeria, affirming that, the national literacy rate is at a low level while most of the teaching forces are unqualified personnel. There are acute shortages of infrastructure and facilities at all levels. He further states that access to basic education is inhibited by gender issues and socio-cultural beliefs and practices, among others. Wide disparities persist in educational standards and learning achievements. The system emphasizes theoretical knowledge at the expense of technical, vocational and entrepreneurial education.

The consequential outcome of poor educational system in Nigeria has led to many children not having the opportunity of attending school at the early stage of their lives. These categories of children live on the streets bare-footed with dirty clothes in poverty and hunger, begging for money and left over food on the streets; rather than attending primary schools. While girls hawk commodities and consumable goods on the streets during school hours, at times end up being raped, kidnapped or abused. Some of these children often grow in to adulthood as illiterates or even criminals there by constituting nuisance to the society. This situation poses great threat to national development in Nigeria. In addition, the poor state of education in Nigeria has led to many industrial actions at all levels of education which often bring it to a halt thus, school calendars are extended causing adverse influences on the duration students or pupils would have to spend in the schools to acquire education, attracting more expenditure on the parents and guardians. In addition, most of the students or pupils during these industrial actions are always staying idle and therefore become exposed to social vices like drugs addiction, alcoholism, armed robbery, prostitution, kidnapping, thuggery among others. This assertion corroborate the work of Olekede (2004) and Obasanjo (2012) that the educational sector in Nigeria is bedevilled by series of challenges that poses
great limitations to the actualizations of the cardinal goals and objectives for educational programmes.

Therefore, going by the vital role of education in developing any society, Nigerian government at all levels need to declare state of emergence in educational sector in order to produce the desired goals that can motivate national development.

Aim of the Study
The aim of this study is to look at the roles played by education in the national development of Nigeria as a state.

Significance of the Study
The study will be essential to the government, policy makers and other stakeholders in using education to promote national development in Nigeria since according to Fafunwa (1974) that education is what each generation gives to its younger ones which make them develop attitudes, abilities, skills and other behaviours which are the positive values to the society in which they live.

Conceptualization of Terms

Education
The importance of education in the development of any nation is enormous. Education has a positive relationship with economic and development of the state. Also, it is worth noting that the development of a nation depends on the quality and quantity of its level of education. According to Uwadia (2010) and Amaele (2011) they assert that education is a process by which an individual acquires the many physical and social capabilities demanded by the society in which man or woman is born into to function. He further states that education is to a nation what the mind is to the body. Hence, education is the single most significant complex of the social control tools for sustainable development is found in educational system either formal or informal. Therefore, education is the total development of the individual child through acceptable methods and techniques according to his or her abilities and interests to meet up with the needs of the society and for the individual to take his or her rightful place and contribute equally to the enhancement of the society for sustainable development.

National Development
The concept national development is central to this study since a developed society is the one that has succeeded in providing a source of living for the majority of its citizens such as provision of food, shelter, clothes, education among others. Tadaro and Smith (2006) identify development as a multidimensional process which includes the sustained elevation of the entire society and social system towards a better human life. In addition, they view development from three approaches namely; sustenance that is view as the ability to meet basic needs, self –esteem which is regarded as sense of worth and respect and freedom is considered as liberty from bondage to nature, ignorance, misery, poverty predestination among others.

Therefore, national development denotes people, society and the factors that influence quality of life. National development attempts to explain the qualitative changes in the structure and frame work of the nation that helps the society to better realize its aims and objectives.
Contributions of Education to National Development

This research attempts to look at the role of education to national development in Nigeria. It can be observed that in Nigeria education has brought developmental gains to the nation in many areas such as self-reliance, production of personality’s intellectual endowments, political system, industrial growth, communication, health, civil service, technology among others. Furthermore, it is worth noting that the Nigerian State is characterized by professionals from all fields of human endeavours who are trained by the provision and achievements brought about by education.

This assertion corroborates the scholarly work of Otite and Ogionwo (2006), Ajayi and Afolabi (2009), Morgan (2009), Afolabi and Loto (2012) and Obasanjo (2012) opine that developed nation is the one that has enough manpower with people taking their rightful positions in order to enhance the growth of the nation. Thus, education is indispensable tool which can assist in meeting the nation’s social, political, cultural, moral and economic aspirations that we equally inculcate in the individual knowledge, skill, agility, character and desirable values that can foster national development and self-actualization. In addition, they assert that there have been massive productions of engineers who have contributed their knowledge and skills towards the growth and national development of Nigeria through education. Equally with the use of policies and recommendations provided by professionals there has been adequate management of Nigerian domestic and international relations with other nations leading to improved living standard, socio-economic growth, political stability, infrastructural development, provision of basic amenities, social reconstruction among others. Hence, with the increased demand for education there has been a continuous drive for a better living condition thus bringing about modernization to way of life. In a related development, Omoyibo and Agbonzeka (2010) assert that the former Secretary of United Nations Organizations (UNO) Boutrous B. Ghali, in May, 1994 that development can be categorized into five dimensions which are peace, economy, environment, social studies and democracy. Meaning education promotes social and group relationships since it train individuals to relate and interact meaningfully with others in the society and to appreciate the significance of the effective organization for human progress for national development. Furthermore, education promotes mutual co-existence among the different students or pupils, learners derive benefits from their socialization with one another leading to interpersonal relations. In addition, education has liberated people from the influences of primitive superstition, ethnic or religious bigotry, nepotism, mediocrity, corruption, egocentrism, sycophancy, thuggery among others. Hence in order to attain national development through education in Nigeria, the educational system must be place on truth, justice, morality, peacemaking, civic and political awareness, training in human dignity and fundamental human rights, democratic culture, popular participation in governance, healthy living, environmental sustainability among others.

Conclusion

Education contributes meaningfully to national development. There is no doubt education is the sustaining base of the political and economic development of the universe. However, educational sector in Nigeria is faced with many challenges ranging from inadequate funding, shortage of manpower, corruption, industrial actions, poor structure among others. Nevertheless, of all these challenges education is the bed rock that has led to the transformation of Nigeria as a nation since education remains the main instrument for the emancipation of the masses from the devastating consequence of the deepened poverty, social injustice, insecurity, economic disaster, malnutrition, kidnapping, unemployment, prostitution, corruption and other social vices that are militating against the Nigerian nation in
order to attain national development. Thus, there is no doubt that education still remains the most effective guide for change of the Nigerian society as well as the actualization of the yarning and aspirations of the people for national development that can bring better technological and scientific innovations to the Nigerian State.

**Recommendations**

Based on the findings of this study, the following recommendations are made if the government of Nigeria wants to attain national development through education:

1. There should be strong political will among the political leaders to ensure continuity of functional educational policies.
2. Education should be a multilateral affairs and responsibility of all the tiers of government.
3. Government should embark on a strategic reform on the funding of educational sector.
4. The private sector should be encouraged to provide more research grant, award scholarship and endowment of professorial chairs in the universities.
5. Education should not be politicized in order to ensure stability and maturity of educational policies.
6. Government should establish more vocational centres to provide massive skilled labour force.
7. Severe punishment should be melted on corrupt officers in the educational sector.
Reference


THE ROLE ZERO BASED BUDGET (ZBB) IN NATIONAL PLANNING AND DEVELOPMENT

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ABSTRACT:
This paper assesses the role of zero based budget in promoting national planning and allocation of resources to deliver services to people especially the poor and excluded for national development. The paper finds out that the factors that hinder the implementation of zero based budgeting are; zero based budgeting requires special training to the staffers to handle it, also it is time consuming, and the budget requires a fresh evaluation of everything in the budget. The paper recommends that there is a need for government to reform the budget process to make it open, transparent and accountable, the payment system should be reform and finally there is a need to strengthening government accounting and financial reporting.

KEY WORDS: zero based budget, national planning, development

INTRODUCTION
Apart from constitution Budget is one of the most important instruments for the development of any modern state, because it allocates resources to services deliveries to people especially the poor and excluded for national development (Otive, 2015). However, In Nigeria the budget process is not open, non participatory, and lacks synergy between plans, policies and budget, also there is failure to priorities the budget with the development challenges. Moreover, there is a need to block leakages and make savings so that what is saved is utilized in other to improve welfare of people, better efficiency and reduces wastages. To this end the new administrations in Nigeria came at a time when our revenue have dwindled to an old time low, it is very important to make savings so that what is saved is utilized in a manner to improve welfare of people, also it recognize that the country’s recurrent budget does not leave enough resource to be invested in growth-enabling assets such as infrastructure. As a result of this, it proposed to adopt zero based budgeting (Tayo, 2015), although, this type of budget became prominence in government during the 1970s financial crises faced with mounting public pressure, US president Jimmy Carter promised to balance the federal budget and reform the budgeting system using Zero based budget(ZBB), which he use while governor of Georgia, though he abolished it in the early 80s (Yanxia and Yaw, 2012). But recently it has experienced a resurgence of interest in both public and private sector, this stems largely from the 2008 recession which brings about the need for budget cuts and increased public scrutiny method such as Zero based budget(ZBB) instead of more traditional budgeting method (Shayne, 2011). it was consider in other to ensure proper planning and decision making, efficient allocation based on the needs and benefits, zero based budget(ZBB) if properly implemented it will detects inflated figures, improve operations, increases staff motivations by providing greater initiative and responsibility in
decision making, it will as well identifies and eliminates wasteful and obsolete operations, identifies opportunities for outsourcing and facilitates more effective delegation of authority. This shows that zero based budgets (ZBB) is an approach to planning and decision making which reverses the process of traditional budgeting (Hartman, 2010). It is designed to achieve better efficiency and reduce wastages and is very important for government especially in the area of meeting societal needs. Moreover; it embraces planning as a process of collecting information, setting objectives and stressing effective use of alternative action.

**LITREATURE REVIEW**

**EMPERICAL REVIEW**

Ekpenyong (2014) examined zero based budgets as a management for effective budget implementation in university of calabar, he use independent t-test, and he establish that zero-based budgeting was credible and rewarding to the university budget implementation in University of Calabar. The application of ZBB for university budget implementation was effective and also significant dependent on the university senior staff.

Babafemi (2014) made a case for modified zero-based budgeting that would include a formulation of decision packages based on budget line items and these would be linked to the long term goals of the nation. Babafemi insisted that this would eliminate overlapping inter-ministerial expenditure, would set operational efficiency targets and would ensure the justification of all expenditure items.

Fajingbesi and Odusola (1999) empirically investigated the relationship between government expenditure and economic growth in Nigeria. The econometric results indicated that real government capital expenditure has a significant positive influence on real output. However, the results showed that real government recurrent expenditure affects growth only by little. Akpan (2005), used a disaggregated approach to determine the components (that include capital, recurrent, administrative, economic service, social and community service, and transfers) of government expenditure that enhances growth, and those that do not. The author concluded that there was no significant association between most components of government expenditure and economic growth in Nigeria.

Bingxin et al. (2009) assessed the impact of the composition of public expenditure on economic growth in developing countries. They used a dynamic generalized method of moment (GMM) model and a panel data set for 44 developing countries between 1980 and 2004. The results indicated that the various types of government spending had different impact on economic growth. In Africa, human capital expenditure contributes to economic growth whereas, in Asia, capital formation, agriculture, and education expenditure had strong growth promoting effect. In Latin America, none of the public expenditure items was significant impact on economic growth. Ramayandi (2003) reviewed the relationship between government size and economic growth in the context of Indonesia and identified that government size tends to have a negative impact on growth.

**1.2 CONCEPTUAL REVIEW**

**CONCEPT OF ZERO BASED BUDGETS**

“Zero-based budgeting is an integration of planning and budgeting into a single process with the objective of development and redeployment of a budget through scrutiny of programs” (Jim, 2012). Zero-based budgeting can be thought of as a tool which provides a process to evaluate programs. It allows for budget reductions and permits the re-allocation of resources from low to high priority programs. Zero-based budgeting is a cost-benefit analysis for all decision making in an organization.
Zero-Based Budgeting (ZBB), on the other hand, is a budgeting process that allocates funding based on programme efficiency and necessity rather than budget history (Akande, 2015). This approach demands that every line item in the budget must be justified and approved (and not just the increment). It requires that every project, expenditure or expense in the budget must be thoroughly evaluated starting from a zero-base. This means that a new budget is prepared every year without recourse to the previous year’s budget. It is independent of what happened in the previous year or years. In addition, it requires that every line item must be matched with a projected revenue source.

ZBB is a method of budgeting in which all expenses must be justified and every function within an organization is analyzed for its needs and costs. The purpose of the ZBB analysis is to assess a particular program’s activities against its statutory responsibilities, purpose, cost to provide services, and desired performance outcomes (Nathan and Teresa, 2013).

1.3 METHODOLOGY

This paper assesses the role of zero based budget in promoting national planning and allocation of resources to deliver services to people especially the poor and excluded for national development. The study heavily relied on secondary data where data were collected from journals, government records, documents, seminar papers, internet, paper and articles.

1.4 RESULTS AND DISCUSSION OF FINDINGS

ZERO BASE BUDGET (ZBB) AND NATIONAL PLANINIG

The role of Zero-Based Budget (ZBB) is to support cost reduction by encouraging active resources allocation over automatic budget increases, increases efficiency by forcing government agencies to work together in order to actively prioritize programs, improve alignment of resources allocations with strategic goal by forcing cost center to identify their mission and priorities, Encourages efficient allocation of resources because it is based on needs and benefits rather than history, Reveals inflated or unjustifiable budgets as each line item has to be defended, Ensures elimination of inefficient or wasteful projects, Ensures that all units and departments identify their mission (core reasons for being) and budget for only items that help them achieve their mandates, Encourages administrators to seek cost effective ways to achieve their mandate, Gives staff across the ministries departments and agencies (MDAs) a sense of greater ownership as the approach ensures the involvement of more staff in deciding which projects to put in the budget, Increases communication and coordination within the government agencies, Seeks more efficient ways of achieving the core mandate including but not limited to outsourcing, Facilitates more effective delegation of authority and improves public perception through perceived increases in transparency and accountability both within government and outside with public.

This shows that zero based budget plan the mission, improve the operations and achieve set objectives for national development. Also it is a budgeting process that allocates funding to budget items based on efficiency and necessity rather than budget history. This is opposed to the traditional budgeting practice of automatically including budget items from the current year in the next year’s budget. In Zero-based budgeting, budget expenditure is reviewed at the beginning of every budget cycle and each line item must be justified in order to receive funding (Deloitte, 2015). In this system, Budget planning commences with the assumption that every expenditure item has a zero bases (Ehiedu and Odita, 2014). This reveals that it is a planning according to need and cost, where by planning is based on existing income and expenditure as the deciding factors in national financial plan (Osinbajo, 2016). Therefore, each expenditure item is evaluated and examined to make decisions as to
whether they are completely beneficial. This shows that a form of cost-benefit analysis is carried out on budget items. This approach is a bottom-up approach to developments. However, zero based budgeting approach has been described to be ideal in situations that require government agencies to re-design its budget and re-align its expenditure items to its overall goals. Proponents of this budget approach assume it would encourage the termination of ineffective programmes and reallocate resources from lower priority activities to those with higher importance (Snell, 2012). It will also enable the new administration to completely change the government priorities, do away with frivolous projects and programs and introduces new project of it is own for national development.

Additionally, this method of budgeting allows various levels of government administration to make better programme and financial decision. It embraces planning as the process of collecting information, setting objective and stressing effective use of alternative actions. It identifies and examines the different ways of performing activities refer to as implementation or executing. It also provides performance measurement standard which refers to as control. These enhance relations with sub-systems and stakeholders towards successful national planning and development.

**1.5 CHALLENGES OF ZERO BASED BUDGET**

In spite of the importance of zero based budgets there are some challenges with the adoption of zero based budgets. Being the fact that it is very time consuming, as such it is not possible for government to do it within three months to the end of the year. Also it requires a specific training to the staffers this is because it is different from the traditional incremental budget which is been used over the years, this will required a lot of money and expert to train staffs. Those handling the budget will find difficult because it is different from annual incremental budget this means it request a fresh budget without reference to the previous year.

**CONCLUSION**

The study assesses the role of zero based budget in promoting national planning and allocation of resources to deliver services to people especially the poor and excluded for national development. It was found that ZBB is important in ensure proper planning and decision making, efficient allocation based on the needs and benefits, it will also detects inflated figures, improve operations, increases staff motivations by providing greater initiative and responsibility in decision making, it will as well identifies and eliminates wasteful and obsolete operations, identifies opportunities for outsourcing and facilitates more effective delegation of authority. But the study found that ZBB is very time consuming, also it requires a specific training to the staffers this will required a lot of money and expert to train staffs, moreover, it request a fresh budget without reference to the previous year. The study concludes that there is a need for government to reform the budget process to make it open, transparency and accountable, the payment system should be reform and finally there is a need to strengthening government accounting and financial reporting this should involved procedure for recording, summarizing, analyzing and interpreting government financial statement.
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TOTAL QUALITY MANAGEMENT AND PERFORMANCE:
A STUDY OF NIGERIAN PUBLIC UNIVERSITIES

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Abstract

The aim of this research is to examine the relationship between total quality management and performance of Nigerian public universities. It proposed a quantitative analysis in which total quality management serves as the management philosophy that ensures the cooperation and participation of all individuals in an organization toward the production of better products and services that can satisfy customers’ needs and wants which exceed their expectations. To answer the research questions, one hypothesis is formulated; (a) There is significant relationship between total quality management and performance of Nigerian public universities. Data were collected by means of drop and pick survey questionnaire completed by academic leaders of the fifteen Northwestern public universities in Nigeria. The questionnaires developed from prior research were used for total quality management and performance of public universities based on the subjective evaluation involving self-report. The findings revealed that significant relationships exist between total quality management and performance. It can be inferred that the more Nigerian universities adopt TQM, the higher the performance is yielded. These findings may be of help to the university administrators that the national universities commission been the regulator of university education in Nigeria and also the federal ministry of education, by giving them an empirically tested findings on some determinants of University performance for them to better understand the effects of variables under study for improve performance and also for sectorial allocation.

Key words: total quality management, performance, university, Nigeria
1. Introduction

University education is considered important as it serves as avenues of producing right personnel expected to contribute to the progress and development of various sectors of an economy. Nigerian public universities were a means of preparing individuals morally and intellectually in order to enable them compete favourably and assume positions domestically and internationally, employment generation, and innovation through technological enhancement (Aliyu, Abubakar, Yakasai, 2016). The sector has recorded a fallen in the form of employment generation and the productivity of graduates in employment. In 1979, the quality of Nigerian university graduates in employment was 72 percent as against, 68 percent in 1999 (Uche, 2014). The above figures clearly showed the reduction and or poor performance of the sector, hence the need to conduct empirical investigation on the performance of Nigerian public universities. Dabalen and Adekola (2000) reported that employers of labour complaint about graduates’ poor preparation to job. In their findings, there is a persistent fall in the academic standards for a number of years that a university degree is no longer a guarantee of practical competence. Consequently, impractical University graduates are continuously been produced. Similarly, graduates performance in the year 1995/96 and 1996/97 stood at 48,243 and 47,339 which clearly indicate a fall in the performance of students and this constitute a problem which needs an empirical investigation (Dabalen & Adekola, 2010). It has been reported that faculty staff among Nigerian Universities were inadequate, which has a direct impact on students’ performance i.e. the number required is 50,000 while the available staff strength stood at 30,452, there is a short fall of 19,548 representing 39.1 percent (Shu’ara, 2014).

Aghenta (2015) and Nwadiani (2016) have criticized the severe inadequate quality management, and knowledge base of Nigerian university products. This is also supported by the study of Onweueme and Nwadiani (2001) which investigated students’ performance in general studies courses. They found an average student performance of 55.99 percent among 6922 students. Moja (2000) reported a poor academic performance and low levels of students in the Nigerian work environment. It is worthy to note that for the past three decades the educational system in Nigeria continued to witness immense quantitative growth at the expense of quality development (Olaleke, Tairat & Adeniyi, 2014). Therefore, theoretically, some past studies reported a positive and significant relationship between the two constructs: Samson and Terziovski, (1999); Hendricks and Singhal, (2001); Kaynak, (2003); Al-Swidi and Mahmood (2012); Jabeen, Shehu, Mahmood and Bambale (2015). Whereas, McCabe and Wilkinson (1998) and Yeung and Chan (1998) reported a negative relationship between TQM and business performance. Nair (2006) suggested that the inconclusive findings regarding the TQM and business performance relationship call for further extensive research to be conducted in other areas such as the education sector. Therefore, this study attempted to extend the literature by further investigating the TQM and performance relationship among the public universities in Nigeria.

Similarly, Several variables were reported in different studies to predict performance, and these include technology orientation, market orientation, bankable business plan, innovation, corporate social responsibility, social context, dynamic competence, learning orientation, government support, technical competence, firm characteristics, firm size, individual determinants as well as the intensity of a marketing decision. Total quality management is chosen for this study because it constitutes the major issue found to predict performance within the study context (Jabeen et al., 2014).
1.1 Problem Statement

The non-performance of Nigerian graduates is a subject of worry to the education stakeholders (Shu’ara, 2014). Uche (2014), admitted that Nigeria Universities are faced with a lot of shortcomings which includes, among others inadequate quality in managing, alliance orientation strategies for managing the Universities, low corporate entrepreneurial spirit. Other common practical issues regarding the non-performance of the Nigerian University students are issues of discussion to all. Nwagu (2014) was reported to itemize the above mentioned factors as major challenges confronting the university education in the country. Odia and Omofonwan (2014), highlighted the danger that the Nigerian university education is facing as a result of poor student capability.

There are a lot of studies conducted to look at total quality management and performance. Yusof and Fayzollahi, Shirmohammadi and Litifian (2013); Jaafreh and Al – abedallat (2013); Yunis, Jung and Chen (2013); Narimani, Tabaein, Khanjani and Soltani (2014); Al – Ettayen and Al – Zubi (2015); Topalovic (2015) reported a significant and positive association between the constructs. The study of McCabe and Wilkinson (1997) found a negative association between TQM and organizational performance. Yunis et al., (2013) suggested a replication of TQM strategy and performance relationship in different countries and context; this is also in line with the recommendation of Jaafreh and Al – Abedallat (2013) which suggest a further examination of TQM to performance relationship in other sectors.

Therefore, poor academic performance among the Nigerian public Universities is an issue of serious concern with both practical and theoretical justification which requires further investigation considering the role played by the sector toward overall sustainable economic development. Hence, the present study is an attempt to investigate total quality management and performance among Nigerian public Universities. The paper is organized as follows: section two provides the literature review, where issues related to total quality management and performance of public universities is explained; section three is about the methodology, it comprises of research design, sample and data collection, measurement of variables; section four is about the result and discussion; section five provides the conclusions and implications.

2. Literature Review

2.1 Total Quality Management and Performance

Past studies have highlighted the relevance of total quality management in achieving higher organizational performance (Yomi &Pheng, 2015). TQM and OP are essential generic strategies and practices for organizations to achieve competitive advantage (Jaca & Psomas, 2015; Rabeh, 2015; Xiang-zhi, 2011). In a review, various authors have conducted studies, evaluating the relationship between TQM and organizational performance across different industries, using different antecedents and mixed results were obtained.

Some of the studies with significant positive findings includes: Hasan and Kerr (2003) investigated the relationship between TQM practices and organizational performance in service organizations and found a positive relationship between TQM dimensions and organizational performance. They further indicated that role of top management and customer satisfactions are among the most important dimensions in terms of their effect on organizational performance.

Similarly, in another study conducted which analyze the interaction between TQM, organization learning competence and performance of multinational companies in Spain, it was found that TQM positively affect MNC’s exploitation and exploration performance.
(Rabeh, 2015). They further mentioned that MNCs that do not effectively implement TQM are bound to realize less performance outcome compare to those who implement it. Also, Al-Dhaafri, Al-Swidi and Rushami Zien Bin Yusoff (2016) investigated the mediating role of TQM between entrepreneurial orientation and organizational performance. The statistical results confirmed the effect of TQM on organizational performance. Equally, they reported TQM as partially mediating the effect of EO on organizational performance. This means TQM can help managers with strong EO to achieve maximum performance in organizations and remain competitive in the market. Moreover, a study by Dubey (2015), which examined an insight on soft TQM practices and their impact on cement manufacturing performance in India indicated that relationship with internal and external partners, quality culture, human resource focus and visionary leadership are positively and statistically significant determinants of firm performance. Furthermore, Homaid, Minai and Rahman (2015) investigated the role of TQM and performance linkages in the microfinance institutions. The results of their investigation revealed a significant nexus between TQM and microfinance institutional performance, as well as a substantial mediating effect of information technology on the relationship obtained.

Another study on the relationship between TQM implementation and corporate financial performance on the Chinese public institutions revealed significant positive correlation between TQM and public institutions’ performance (Xiang-zhi, 2011). However, smaller firms were found to have better financial performance compared to larger ones. This can be unrevealed when the total effects is examine before and after TQM implementation. Similarly, Yomi et al (2015) in their study of TQM implementation through ISO9001 in the Chinese construction companies in Nigeria reported a significant agreement between two perceived good-quality and Chinese firms performance. More so, the report of the investigation conducted in Saudi Arabia to explore the extent of TQM implementation in Hospitals, revealed that the most implemented principles, which determines effectiveness performance in public sector was customer focus, and the least implemented was continuous improvement (Al-Shdaifat, 2015). However, the private sector implemented all the five TQM principles more than other sectors did, but in both cases performance has been improved significantly. Equally, Benavides-Velasco, Quintana-García and Marchante-Lara, (2014) conducted a study on TQM, Corporate Social responsibly and performance in Spanish hotel industry, results proved that combination of TQM and CSR have a positive effect on hotel business performance. However, such outcomes would have enhanced if longitudinal research approached was used. This would have enabled for examining the evolution of the causality between variables, especially the relationship between the implementation of TQM and CSR.

Meanwhile, a study aimed at examining the relationships of design for environment and quality management innovation to environmental and economic performance reported a significant positive link between quality innovation and environmental and economic performance (Jackson, Gopalakrishna-Remani, Mishra, & Napier, 2016). In another development in Iran, Valmohammadi and Roshanzamir (2015) examined the guidelines of improvement aimed at determining the effect of culture and TQM on performance, they reported a positive direct effects of culture and TQM on performance. Similarly, Cetindere, Duran, and Yetisen (2015) studies the effects of TQM on the business performance in Kutaya province of Turkey. The result of their study implied a string positive correlation between TQM and business performance across businesses in Turkey. Furthermore, Talib, Rahman, and Qureshi (2013) study on investigation of the relationship between TQM practices and quality performance in Indian services companies indicated that TQM practices partially correlate with quality performance, while quality culture was perceived as the dominant TQM practice in quality performance.
Meanwhile, Wang, Chen and Chen (2012) analyzed the effects of TQM on hotel performance as mediated by market orientation, and found that TQM positively affects hotel performance. While Lamba (2012) explored the impact of total quality service on bank employees’ organizational commitment and reported that total quality service has a significant impact on employees’ commitment which in turn influence overall performance. Another study by Zehir, Ertosun, Zehir, and Müceldilli (2012) which investigated TQM’s practices’ effects on quality and innovative performance showed a statistically significant correlation among TQM activities, quality and innovation performance. Furthermore, O’Neill, Sohal and Teng (2015) conducted a study on quality approaches and their impact on firm’s financial performance in Australia revealed that firm’s quality management orientation does provide a significant financial performance. While a study conducted in Thailand to investigate the factors influencing TQM in public sector implies that successful public organizations required leaders who possess TQM factors such as strong team work, appropriate training, incentives, evaluation, and effective communication have high tendency to achieve better performance (Suwandej, 2015).

On the contrary, the study of Nnennaya (2013) appraised the quality of University education in Nigeria and inferred that there were constraints to quality management in Nigerian Universities. Additionally, Abdul Azeez, Abbas and Mansur, (2014) and Awatif and Mohammad (2013) studies indicated no statistically significant differences in the effect of the faculty members of the teaching skills in the light of TQM practices. Paul (2013) reported no relationship between the quality of the practices of the educational institutions and their level of TQM effectiveness. Based on these arguments, we propose that:

H1: There is a significant and positive relationship between total quality management and performance of Nigerian public universities.

3. Material and Method

4.1 Sample and data collection

A total of 609 academic leaders from the fifteen (15) northwestern states public universities in Nigeria made up the target population. Based on Krejcie and Morgan (1970), a sample size of 234 was determined. Hair, Wolfinbarger and Ortinal (2008) suggested an increase in the sample size in order to take care of none response issue. Therefore, a total of 400 questionnaires were administered, out of which 216 were duly completed and returned representing 54 percent. The data collection took about 3 month between April, 2016 to July, 2016. However, a total of 198 questions were finally retained for analysis representing 49.5 percent. A total of 18 questionnaires were removed from the analysis due to issues relating to both univariate and multivariate outliers.

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributed Questionnaires</td>
<td>400</td>
<td>100</td>
</tr>
<tr>
<td>Returned Questionnaires</td>
<td>216</td>
<td>54</td>
</tr>
<tr>
<td>Rejected Questionnaires</td>
<td>18</td>
<td>4.5</td>
</tr>
<tr>
<td>Retained Questionnaires</td>
<td>198</td>
<td>49.5</td>
</tr>
</tbody>
</table>

Thus, a total of 198 respondents make the sample for this study showing a good response rate of 49.5 percent which is considered adequate (Shehu, 2014; Shehu&Mahmood,
There is also a possibility of a non-response bias when there exists a significant difference between the answers of those who responded and those who do not respond. To test for non-response bias, the early respondents were compared with late respondents as suggested by Armstrong and Everton (1977). No significant differences were found in the mean responses for any of the constructs in the study, signifying that the non-response bias is not an issue in this study.

4.2 Measures

The instruments for this study were developed using established measures from previous studies. The total quality management of twenty-two (22) items was measured using the five-point Likert type scale adapted from Aliyu (2014). This measurement was selected because it has been shown to possess valid psychometric measurement properties. The measurement for performance was based on Shukri (2014). It consisted of twenty-three (23) items and measured using a five-point scale. Self-report technique was used to measure performance, and subjective assessment was employed because it was expected that the academic leaders would be unwilling to disclose full financial data.

4.3 Reliability and Validity

Cronbach’s alpha was used to assess the instruments reliability. Generally, 0.70 or higher is considered to be an agreed value for alpha’s reliability (Hair et al., 2011). Table 2 below confirms that all the variables have values of more than 0.7, indicating that the instruments are relatively reliable.

Table 2: Reliability Scores for Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of items</th>
<th>Alpha value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>23</td>
<td>0.939</td>
</tr>
<tr>
<td>Total quality management</td>
<td>22</td>
<td>0.856</td>
</tr>
</tbody>
</table>

The variables in this study were validated through factor analysis. Before performing the analysis, the suitability of the data was assessed through two tests; Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) and Bartlett’s Test of Sphericity. The KMO values were 0.917 and 0.902, and the Bartlett’s Test of Sphericity was significant at p<0.000 (See Tables 3 and 4). The results support the factorability of the data. For factor analyses, principle component analysis and Varimax rotation were performed. The analysis has resulted in single factor loading in each of the two constructs; performance and total quality management, which explained 60.616 and 71.416 percent of the variance, respectively. Only factors with a loading value of 0.50 and above were considered (Hair et al., 2011; Hair et al 2010; Tabachnick&Fiddell, 2007:2014).

Table 3: Result of Factor Analysis for University Performance

<table>
<thead>
<tr>
<th>Items</th>
<th>Component 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>PF03 Facilitation of departmental goals</td>
<td>.809</td>
</tr>
<tr>
<td>PF06 Group requirement of future direction</td>
<td>.803</td>
</tr>
<tr>
<td>PF07 Effective interaction with group to guide task accomplishment</td>
<td>.803</td>
</tr>
<tr>
<td>PF08 Perception of needs and concern for personal problem of others</td>
<td>.779</td>
</tr>
<tr>
<td>PF09 Skillfull in in resolving conflict</td>
<td>.778</td>
</tr>
</tbody>
</table>
PF14 Handling positive and negative feedback .769
PF17 Well interaction with students .757
PF18 Effective communication with other academic staff and unit .757
PF19 Facilitation of faculty intellectual pursuits .749
Eigen value 5.455
Percentage of variance 60.616
KMO .917
Bartlett’s Test of Sphericity 711.723
Significance .000

Table 4: Result of Factor Analysis for Total quality management

<table>
<thead>
<tr>
<th>Items</th>
<th>Component1</th>
</tr>
</thead>
<tbody>
<tr>
<td>TQM17 Continuous improvement is emphasized</td>
<td>.885</td>
</tr>
<tr>
<td>TQM12 Incorporation of students requirements and needs on our plans</td>
<td>.875</td>
</tr>
<tr>
<td>TQM11 Comprehensive planning process</td>
<td>.853</td>
</tr>
<tr>
<td>TQM14 Aligned of departmental operations with the entire university mission</td>
<td>.843</td>
</tr>
<tr>
<td>TQM15 Emphasis on the continuous improvement</td>
<td>.825</td>
</tr>
<tr>
<td>TQM16 Emphasis on quality awareness programs for students</td>
<td>.817</td>
</tr>
<tr>
<td>TQM13 Writing statement of strategy covering all operations</td>
<td>.816</td>
</tr>
<tr>
<td>Eigen value</td>
<td>4.999</td>
</tr>
<tr>
<td>Percentage of variance</td>
<td>71.416</td>
</tr>
<tr>
<td>KMO</td>
<td>.902</td>
</tr>
<tr>
<td>Bartlett’s Test of Sphericity</td>
<td>694.014</td>
</tr>
<tr>
<td>Significance</td>
<td>.000</td>
</tr>
</tbody>
</table>

4. Results and Discussion

4.1 Profile of Respondents

The profile of respondents is shown in Table 5 below. The respondents were asked on some demographic characteristics which include gender, age, educational qualification, years in service, current administrative position as well as number of years in current administrative position. Starting with gender, it was found that male academic leaders constitute the majority with 191 in number representing 96 percent. As regard to age, those between 40-50 years are the major academic leaders found with 63 (35) percent, followed by those between 30-40 years (29) percent, 50-60 years are next with 20 percent and 60 years and above carries 19 percent, finally, none is found between 20-30 years. Similarly, with respects to current administrative position of respondents, majority are heads of various academic departments with response rate of 81 (41 percent), followed by deputy deans of faculties which recorded 26 response rates (6 percent), followed by Directors of university Centre’s which are 22 in number representing (11 percent). Others are deputy directors which constitute 15 respondents.
(7.5 percent), program coordinator and faculty deans recorded 12 each with (6 percent) respectively. Directors and deputy directors of university excellence Centre’s recorded 5 each (2.5 percent), other respondents are 3 in number (1.5 percent), only two Vice Chancellors and deputy program coordinators responded representing (1 percent) each. Meanwhile, with regards to years in current administrative position, 1-2 years had response of 75 (38 percent), 55 had between 3-4 years (28 percent), 36 respondents had between 5-6 years (18 percent), whereas, 32 respondents had 7 years and above in their respective present administrative positions.

### Table 5: Demographic Profile of Respondents

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Categories</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>191</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>20 -30 Years</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>30 – 40 Years</td>
<td>59</td>
<td>29</td>
</tr>
<tr>
<td>Age</td>
<td>40 – 50 Years</td>
<td>63</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>50 – 60 Years</td>
<td>39</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>60 Years and above</td>
<td>37</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>HND/Bachelor</td>
<td>-----</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Master Degree</td>
<td>51</td>
<td>74</td>
</tr>
<tr>
<td>Education</td>
<td>PhD</td>
<td>147</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>-----</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Below 5 Years</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Between 5-10 Years</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Between 11-15 Years</td>
<td>31</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Between 16-20 Years</td>
<td>65</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Between 21-30Years</td>
<td>55</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>30 Years and above</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Current Administrative Position</td>
<td>Vice – Chancellor</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Deputy Vice - Chancellor</td>
<td>13</td>
<td>6.5</td>
</tr>
<tr>
<td></td>
<td>Dean</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Deputy Dean</td>
<td>26</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Head of Department</td>
<td>81</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Director of Centre/institute</td>
<td>22</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Deputy Director of Centre/institute</td>
<td>15</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Programme Coordinator/Chairperson</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Deputy Programme Coordinator/Chairperson</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Director University Excellence Centre</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Deputy Director University Excellence centre</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>3</td>
<td>1.5</td>
</tr>
</tbody>
</table>
4.2 Hypothesis Test

The research hypothesis (H1) stated that there is a significant relationship between total quality management and performance of Nigerian public universities. This hypothesis was tested using SPSS (version 22). Table 6 displays the result of the analysis, and the t-value is 11.123 at p < 0.000, signifying that there is a positive and significant connection between total quality management and performance of Nigerian public universities. Based on this outcome, hypothesis H1 is supported. It can be inferred that the more Nigerian universities adopt TQM, the higher the performance is yielded. Moreover, the strength of the relationship is measured by (β = 0.527), meaning that TQM is a crucial predictor of university performance. This result is consistent with previous studies and the general notion that TQM is associated with superior performance.

Table 5: Relationship between total quality management and university performance

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Standardized Beta</th>
<th>T</th>
<th>Sig. (p-value)</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total quality management</td>
<td>0.527</td>
<td>11.123</td>
<td>0.000</td>
<td>0.511</td>
</tr>
</tbody>
</table>

The link between total quality management and performance of Nigerian public universities was investigated in this study. It was found that positive and significant relationship exists between TQM and performance. Thus adopting TQM in the universities would result in higher universities performance. Academic leaders in the Nigerian universities should be aware that TQM strategy must be implemented in their universities in order for them to obtain modest benefit over their opponents. This relates well with resource-based view of the firm which postulates that the presence of assets that are difficult to imitate are associated with the firm’s competitive advantage (Barney, 1991). Implementation of advance manufacturing TQM has been recognized as a main factor that ensures competitiveness in the companies through the involvement of organizational members (Naik&Charkravarty, 1992). The finding of this research concurs with many past studies of Sureshchandar, Rajendran and Anantharaman (2002) which found that TQS dimensions are good predictors of service quality in the Indian banking sector. Lee (2003) in an investigation which examined total quality management and small and medium enterprise performance in China, using a quantitative survey discovered that TQM has a significant effect on organizational performance. Kaynak (2003) examined total quality management effects on organizational performance. A cross – sectional study conducted via mail questionnaire survey of US firms from contiguous states. TQM practice is found to positively associate to organizational performance of the US firms. Khan (2003) surveyed four hundred and sixty three firms over a period of ten years, and found a significant and positive association between TQM and performance of firms. Similarly, Temtime (2004) used a questionnaire survey of fifty four small and medium enterprises in Bostwana using a descriptive statistics for the data analysis. The finding confirms that environmental scanning is indirectly related to TQM practices and has a moderating role in TQM practice. Prajogo and Brown (2006) empirically surveyed managers in Australia, using descriptive statistics, correlation and
regression methods for the data analysis. The conclusion is in support of the positive relationship between approaches to quality and organizational performance.

5. Conclusions and Implications

This research adds to the existing knowledge by providing empirical evidence of the contribution of total quality management to performance of Nigerian public universities. This investigation also responds to calls for more exploration of the TQM in an international context and its impact on performance. In addition, this study provides university administrators with a more information to develop and enhance skills, resources and strategies to achieve competitive advantage and superior performance. However, the universities administrators should focus efforts on adopting TQM in order to realize the potential of involving all organizational members towards attaining the target goals. Although the study has theoretical and managerial contributions, it also contains several limitations. First the sample size in this study may limit the generalizability of the findings, as only the academic leaders are considered, thus, academic staff, non-academic staff, students responses were not part of the sample. Second, the use of a single respondent may be subject to common method bias. Only the academic leaders of the universities, moreover, the perceptual opinions of the academic leaders may be biased because of subjective judgments of his or her own opinion. Nevertheless, the researchers had taken necessary steps to minimize any biases that may have resulted, and future research might consider employing multiple informants. The third limitation was the cross-sectional nature of the study. Cross-sectional study does not elucidate why certain correlations exist and at the same time limits the inferences about the causal order of the variables. In addition, the data can only provide a snap shot at one point of time. Although useful information, assertions based on temporal snapshots are limited to the frame of time in which the data were collected. Thus, future research should consider the use of a longitudinal investigation that would allow university performance to be studied over time and provide further insights into the dynamic nature behind the findings.
REFERENCES


MARKETING ANALYSIS OF LEGUMES BY-PRODUCTS USED AS LIVESTOCK FEED IN KANO STATE, NIGERIA

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ABSTRACT

The study focused on the profitability analysis of marketing of legumes by-products used as livestock feed in Kano State. Multistage sampling technique was used for the study and data was collected using structured questionnaire supplemented with key informant interview. A total of one hundred and seventy eight (178) legumes by-product marketers were sampled. The analytical tools employed included descriptive statistics, net marketing margin analysis and marketing efficiency. The result of the socio economic characteristics showed that 12% of the legumes by-products marketers were adult belonging to the age group of 43-52 years, 51% of them had household size of 1-6 members, 43.8% of the legumes by-products marketers had 14-22 years of marketing experience, 94.9% married with 88.6% males, the result of educational background of legumes by-products marketers in the study area shows that 44.9% had Qur'anic education. The result of the profitability analysis revealed that legumes by-products marketing was profitable as the marketing margin for Cowpea haulms and Groundnut haulms were 323.34 and 470 respectively. The total revenue realized for the marketing were 1796.67 and 2083.33 for Cowpea haulms and Groundnut haulms respectively. The result further revealed Gross Margin (GR) of 0.01 and 0.01 for Cowpea haulms and Groundnut haulms marketed in the study area while return per naira invested was found to be 1.09 and 1.16 accrued from every 1.00 invested for legumes by-products marketing. The result also revealed that marketing of legumes by-products was efficient with 254.17% and 306.16% for Cowpea haulms and Groundnut haulms respectively indicating that marketing of these by-products was profitable and efficient in the study area. The study recommended that since legumes by-product marketing is a profitable enterprise more youth should be encouraged to venture into the enterprises this will go a long way in reducing unemployment in the study area.

Keyword: Legumes by-products, Cowpea haulms and Groundnut haulms.

INTRODUCTION

Feeds are natural substances which are most commonly organic matter with little components of inorganic matter (Umar, 2002). Livestock feeds are both organic and inorganic substances taken in by animals to provide nutrients such as energy, proteins, minerals and vitamins, metabolized in the body to maintain and produce body tissues, fluids and by-products such as meat, milk and eggs. The feed industry is one of the most competitive businesses in the agricultural sector and is by far the largest purchaser of U.S. corn, feed grains and soybean meal (FAO, 2001).

Studies in various part of Nigeria revealed that about 31% of the Nigerian land area is cropped and different ranges of livestock feeds are produced (Abubakar, 1998). Livestock feeds are of two types those from cereal (millet bran, sorghum bran and maize bran) and those from legume (cowpea vines, groundnut hay and soybean) (Benerjee, 2005). Marketing provides the mechanism whereby producers exchange their commodity for cash. The cash is
used for acquiring goods and services which they do not produce themselves, in order to satisfy a variety of needs ranging from food items, clothing, shelter, medication and schooling to the purchase of breeding stock and other production inputs and supplies (Solomon and Nagussie, 2002). Agricultural marketing from micro view point is the performance of all business activities which direct the forward flow of goods and services to consumers in order to accomplish producer’s objectives (Olukosi et al., 2007).

Livestock feed markets suffered from neglect in marketing services in spite of their importance to household welfare and national economy as a whole simply because their full potential is fairly realized. The marketing of industrial and agricultural by-products in Nigeria is faced with a number of constraints including relatively unorganized market and inadequate feed markets (Powell 1984).

MATERIAL AND METHODS
The study was carried out in Kano State, Nigeria. The state lies on latitudes 10°03'33"N to 12°37'1"N and Longitude 7°40'40"E to 9°29'1"E. It is within sudan savannah zone, the total land area of the state is 20,760 square kilometers. The mean daily maximum and minimum temperature are 91.6°F (33.1°C) and 60.6°F (15.85°C) respectively. Kano state is bordered to the north and northwest by Katsina state, to the east and northeast by Jigawa state, to the south by Bauchi state and to the southwest by Kaduna state. According to the official gazette of Federal Republic of Nigeria (2007), the state had a population of nine million three hundred and eighty two (9,383,682) inhabitants, with an annual growth rate of 3.3%, who are mainly Hausa and Fulani by tribe (NPC, 2006). Major crops grown in the state includes millet, sorghum, maize, rice, wheat, cotton, gum Arabic and groundnut etc. Their by-products are significant source of food to livestock while rearing of animal like cattle, horses, goats and sheep were more pronounced (RIM, 1992). The state has quite large number of markets. These include rural and urban markets where agricultural commodities are assembled including livestock and their feeds. Most of the market operates weekly or twice a week with the exception of urban markets which operate daily. Kano state is currently made up of forty four Local Governments Area (LGAs) and the state is agriculturally classified into three (3) zones by the Kano State Agricultural and Rural Development Authority (KNARDA, 1995). Legumes by-products marketers are found in all the three ADPs zones of Kano state (KNARDA, 2001).

Sampling Method
A multistage sampling technique was used for data collection in the study area. For this study all the three (3) Zones was considered. The first stage involved purposive selection of two local government areas from each zone based on relative abundance and high intensity of feed marketers. On that basis, Rano and Kura local government areas were chosen from zone I, Danbatta and Shanono local government areas were chosen from zone II and Wudil and Taraunilocal government areas were chosen from zone III. The second stage, involved purposive selection of one market from each of the selected local government based on the size, location and high involvement in feed marketing. On that basis, Rano and Kura markets were selected from zone I, Danbatta and Shanono markets were selected from zone II and Wudil and Ungwauku Yan awaki markets were selected from zone III. The third stage, involved random selection of respondents from the six selected markets. A pre-survey was conducted and a total of 595 marketers were identified from all the markets out of which 30% was considered from each of the selected markets. In the last stage, a total of 178 respondents were randomly selected using flip papers in the study. In each market, the marketers were first identified and a list was prepared, a ballot box method was applied in selecting the marketers.

ANALYTICAL TOOLS
The tools of analysis used for this study are: Descriptive statistics, Marketing margin analysis and Marketing Efficiency.
**Marketing Margin Analysis:** It is the difference in prices of a commodity at different stages of time, place, form and possession as it moves from producer to the ultimate consumer (Olukosi et al., 2007). The model is specified as follows:

Net Marketing Margin (NM) = TR – TMC  
Where:
- NMM = Net Marketing margin
- TMC = Total Marketing Cost (C₁+C₂+C₃+C₄+C₅)

Where: C₁ = Cost of Transportation  
C₂ = Cost of labor  
C₃ = Marketing charges  
C₄ = Storage  
C₅ = Commission Fee

**Gross Ratio:** It is a ratio that measures the overall financial success of a business. A less than 1 ratio is desirable for any business, the lower the ratio the higher the profit (Olukosi and Erhabor, 2008). It is stated as:

GR = \( \frac{TMC}{TR} \)  
Where,
- GR = Gross Ratio
- TMC = Total Marketing Cost
- TR = Total Revenue

**Operating Ratio:** It measures the solvency of a business. A ratio less than 1 is desirable because it indicates that the business is making profit. A ratio of 1 implies break-even and a ratio greater than 1 implies a loss (Olukosi and Erhabor, 2008). According to Musa et al., (2006), the lower the ratio (<1) the higher the profitability of the business. It is given as:

OR = \( \frac{TVC}{TR} \)  
Where,
- OR = Operating Ratio
- TVC = Total Variable Cost
- TR = Total Revenue

**Return on Capital Invested:** return on capital invested is defined as total income or revenue divided by total marketing cost (Olukosi et al., 2005). It is given as:

RNI = \( \frac{TR}{TMC} \)  
Where,
- RNI = Return on Capital Invested
- TR = Total Revenue
- TMC = Total Marketing Cost

**Marketing Efficiency:** Marketing efficiency measures the ratio of output to input i.e. the maximization of the ratio of output to input marketing (Olukosi, et al., 2007). The higher the ratio, the higher was the marketing efficiency and vice versa. The formula is specified as:

M.E = \( \frac{Value\ added\ by\ marketing\ X\ 100}{Cost\ of\ marketing\ services} \)  
Thus:

Value Added by marketing (VA) = Sp – Pp  
Where:
- Sp = Selling price of the commodity (in naira)
RESULT AND DISCUSSION
Socio Economic Characteristic of Respondents

The study examined the socio-economic characteristics of the respondents’ such as age, sex, marital status, household size, educational status, reason for livestock feed marketing, nature of business, years of experience in livestock feed marketing and benefits derived from association. The results are presented in Table 1a shows that the ages of the respondents’ ranges from 23-32 years with an average of 44years. The results further revealed that adult of age group of 43–52 years were the highest with 43.1%, while least percentage of 2.3% goes to age group of 63-72 years. The implication of this finding is that, middle aged take part more in livestock feed marketing than old aged and younger ones in the study area. This tally with the finding force work of Osotimehin (2006) that trader’s age affects their efficiency in performing managerial decisions. Household size is one of the socio economic variables that may influence the level of participation in legumes by-product marketing. The result in Table 1a revealed that majority of the livestock feed marketers 51% had household size of 1–6 members and 8.5% goes to household size of 13-30 members. Thus, majority of the respondents in the study area are having less household size because the business is more of middle aged who have less family size than the old ones. Marketing experience is the number of years that the marketers spent in livestock feed business. The longer the experience in the business, the better the performance in livestock feed marketing. The result indicated that most of the respondents 43.75% had a marketing experience of 14-22 years while 6.25% of the respondents had marketing experience of 32-49 years. This implies that livestock marketers can manage risk and make sound decision in managing cereal and legume by products used as livestock feed to enhance better performance.

Gender is an important socio-economic parameter which gives the proportion of respondents according either male or female (Ekong, 2003). The study revealed that both male and female were involved in livestock feed marketing with male having 88.6% while female constitute 11.4% as presented in Table 1b. The few size of female traders participating in livestock feed marketing may be due to religious and cultural barrier in the study area. It was observed that men generally participate more in production and marketing aspect of agriculture than women who participate more in agro-processing (Ekong, 2003). This agrees with finding of (Ewa and Ago 1998) who said “economic status and contribution of women is less in developing countries due to continuous dependent on their male counterparts and the social setting of their society. Education is very important in every aspect of life and it plays a fundamental role towards agricultural development, it enhances easy assimilation, awareness and receptivity to innovations of agricultural practices. Thus, education gives a better awareness, persuasion and adoption of innovation hence better improvement in production and marketing (Adams, 1992). The result in Table 1b indicated that 44.9% of legume by-products marketers had Qur’anic education while 1.1% had tertiary education having the least percentage. This may be due to the nature of the enterprise which is dominated by people from rural areas. The finding of this study tally with (Bivan, 1995) who reported that education attendant is paramount in respondent’s decision making. The result in Table 1b further revealed that majority of the livestock feed marketers 81.2% were membership to an association while 18.8% of the traders were no having membership to an association. The result also reveals that 45.2% of the members benefited from the association in helping one another, 32.3% benefited with source of information while 22.6% benefited with credit. Imoudu and Afolabi (2002) posited that the market structure for agricultural products in
Nigeria is not perfectly competitive due to the collusive tendencies of sellers by forming associations for particular products.

**Profitability of Marketing Legumes By-Products used as Livestock Feed**

The profitability measures such as the marketing margin, net marketing margin (NMM), marketing revenue and return to naira invested (RNI), gross ratio (GR) and operating ratio (OR) were determined and presented in Table 2. The results revealed that the total sales per year of cowpea haulms and groundnut hauls were ₦332,383.98 and ₦385,416.08 respectively. The return to naira investments of 1.09 and 1.16 for cowpea haulms and groundnut hauls implies that a profit of ₦0.09 and ₦1.16 would return to the invested respectively. The result further revealed gross ratio (GR) of 0.01 and 0.02 for cowpea haulms and groundnut hauls traded. The ratios were all less than unity. A less than 1 ratio is preferable for any farm business, Olukosi and Erhabor, (2008) posited that the lower the ratio the high the profit impliedly, cowpea haulms and groundnut hauls were profitable in the study area. In similar vein, the operating ratio (OR) of cowpea haulms and groundnut hauls were obtained as 0.91 and 0.87 respectively. Operating ratio of both commodities was lower than unity. Olukosi and Erhabor, (2008) also reported that a ratio less than one indicates that the marketers are marking profit.

The results in Table 2 show the marketing efficiencies of cowpea haulms and groundnut hauls used as livestock feed was found to be 254.17% and 306.16% respectively. The result further revealed that groundnut haulms have the highest marketing efficiency as compared to cowpea haulms in the marketing of legumes by-products in the study area. The higher the ratio the higher the marketing efficiency and vice versa (Olukosi, et al., 2007).

<table>
<thead>
<tr>
<th>Table 1a: Socio Economic Characteristics of Legume by-products Marketers.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td><strong>Age</strong></td>
</tr>
<tr>
<td>23-32</td>
</tr>
<tr>
<td>33-42</td>
</tr>
<tr>
<td>43-52</td>
</tr>
<tr>
<td>53-62</td>
</tr>
<tr>
<td>63-72</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<tr>
<td>Mean</td>
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<td><strong>Household size</strong></td>
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<tr>
<td>1-6</td>
</tr>
<tr>
<td>7-12</td>
</tr>
<tr>
<td>13-18</td>
</tr>
<tr>
<td>19-24</td>
</tr>
<tr>
<td>25-30</td>
</tr>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Level of education</td>
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<tr>
<td>Primary</td>
</tr>
<tr>
<td>Secondary</td>
</tr>
<tr>
<td>Quranic</td>
</tr>
<tr>
<td>Adult</td>
</tr>
<tr>
<td>Tertiary</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Marital status</td>
</tr>
<tr>
<td>Married</td>
</tr>
<tr>
<td>Single</td>
</tr>
<tr>
<td>Divorced</td>
</tr>
<tr>
<td>Widow</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Association Membership</td>
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<tr>
<td>Member</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefits from association</th>
<th>None member</th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Helping one another</td>
<td>143</td>
<td>176</td>
<td>100</td>
</tr>
<tr>
<td>Source of information</td>
<td>10</td>
<td>31</td>
<td>100</td>
</tr>
<tr>
<td>Source of credit</td>
<td>7</td>
<td>31</td>
<td>100</td>
</tr>
</tbody>
</table>


Table 2: Profitability Analysis per 116kg of Cowpea haulms and 116kg and Groundnut haulms used as Livestock feed per 24kg (bag)

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Cowpea haulms</th>
<th>Groundnut haulms</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value (₦ /kg)</td>
<td>% TMC</td>
<td>Value (₦ /kg)</td>
</tr>
<tr>
<td>Marketing Cost (MC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase price</td>
<td>1473.33</td>
<td>89.66</td>
<td>1613.33</td>
</tr>
<tr>
<td>Transportation cost</td>
<td>40</td>
<td>2.43</td>
<td>50</td>
</tr>
<tr>
<td>Storage cost</td>
<td>30</td>
<td>1.83</td>
<td>30</td>
</tr>
<tr>
<td>Cost of labour</td>
<td>80</td>
<td>4.87</td>
<td>90</td>
</tr>
<tr>
<td>Marketing charges</td>
<td>20</td>
<td>1.22</td>
<td>20</td>
</tr>
<tr>
<td>Total Marketing Cost</td>
<td>170</td>
<td>100</td>
<td>190</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>1796.67</td>
<td></td>
<td>2083.33</td>
</tr>
<tr>
<td>Gross Ratio</td>
<td>0.01</td>
<td></td>
<td>0.01</td>
</tr>
<tr>
<td>Operating Ratio</td>
<td>0.91</td>
<td></td>
<td>0.87</td>
</tr>
<tr>
<td>Marketing Margin</td>
<td>153.34</td>
<td></td>
<td>280</td>
</tr>
<tr>
<td>Net Marketing Margin</td>
<td>1626.67</td>
<td></td>
<td>1893.33</td>
</tr>
<tr>
<td>RNI</td>
<td>1.09</td>
<td></td>
<td>1.16</td>
</tr>
<tr>
<td>Marketing Efficiency (%)</td>
<td>254.17</td>
<td></td>
<td>306.16</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2013

**CONCLUSION**

The prospect of legumes by-products marketing in Kano state were found to be full time occupation providing employment for a large number of individuals. This could be attributed to the amount of profits realized in both activities. The socio economic characteristics that enhance higher marketing of cereal and legumes by-products marketers were age, household size, years of experience and level of income.
RECOMMENDATION

Based on the findings of the study the following recommendations were made:

i. Legumes by-products marketers should form strong and viable corporative groups which will make them have access to institutional support.

ii. Since legumes by-products marketing is a profitable enterprise more youth should be encouraged to venture into the enterprises this will go a long way in reducing unemployment in the study area.

iii. There is need for government and its development partners to encourage people to go into farming so that there will be an increase in the quantity of cereals and legumes and subsequently an increase in the availability of livestock feeds.
REFERENCES


AN ASSESSMENT OF DIURNAL AIR HEAT STRESS CONDITIONS IN URBAN CORE OF KANO METROPOLIS, KANO REGION OF NIGERIA

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Abstract
The Research assessed diurnal heat stress condition in urban core of Kano Metropolis. Nine sites were selected by cluster sampling method. The Meteorological data were collected simultaneously across the sample sites at interval of 3 hours (i.e. 3 am, 6 am, 9 am, 12 noon, 3 pm, 6 pm, 9 pm and 12 mid-night) each in the months of April, August, October and December. Heat stress condition was calculated by using Discomfort Index (D.I): 0.5Tw + 0.5Ta. The result indicates heat stress existence in the study area with hottest points found in the city centers. The OUT-door mean seasonal / Diurnal Heat stress condition D.I ranges revealed as follows: 16-37.5 for urban core. The patterns of the stress indicated that the industrial and densely populated axes experienced more of the stress than the sparsely populated and institutional centers. A three ways Analysis of Variance revealed a significant differences between seasons and hour of the day. Its suggest: Intercity Street and houses spaces for effective ventilation, massive afforestation of city streets and initiating public heat stress detecting, monitoring and disseminating system for heat stress alert to the public should be done to improve the city habitat.

Keywords: heat stress, diurnal, seasons, ventilation, monitoring, monitoring

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Background of the study
Urbanization processes and its associated outcomes were seem to be responsible for the degradation of city environmental air quality and change in the climatic condition. The cities built themselves by destroying natural green cover and replacing it with man-made covers which in most cases possess higher heat capacities. They do absorb and retain excessive amount of heat from the solar radiation and later release much of the heat to the lower atmosphere of the city. This excess heat creates urban thermal heat load and in turn impact a phenomenon called Urban canopy heat Island (UCHI). It is believed that urbanization has negatively impacts the environment mainly by the production of pollution, the modification of the physical and chemical properties of the atmosphere, and the covering of the soil surface. The natural landscapes/elements in the cities are been replacing with built up areas, paved surfaces and push natural elements outside the cities. Numerous reports have indicated that, around half of the world’s human population live in urban areas. It is expected
that the global rate of urbanization will increase by 70% of the present world urban population by the year 2030, as urban agglomerations emerge and population migration from rural to urban/suburban areas intensifies,(Camilo, 2008). More industrial, commercial and transportation services are developed to serve the growing and transforming cities. This transformation affects many physical processes in each of the cities and may results to not only Urban Heat Island (UHI), but also heat stress and pollution, which negatively impacts not only on the residents of urban-related environs, but also on humans and their associated ecosystems located far away from cities.

Heat stress is a physiological condition of a living body, which occurs when one’s body gains heat faster than it loses. When this condition persists without relief, there is the danger that worker can experience heat discomfort. Thus human health is complicated by heat stress simply by forcing the body to continue functioning as it tries to maintain core temperatures. A person’s tolerance to high temperature may be limited if he or she cannot: sense temperature, lose heat by regulatory sweating and move heat by blood flow from the body core to the skin surface where cooling can occur.

1. The heart rate increases to move blood and heat from heart, lungs and other vital organs to the skin.
2. Sweating increases to help cool blood and body evaporate water, which is the most important way the body gets rid of the excess heat.

The local communities and Kano state governments in general have not make serious commitment towards identifying and assessing the status of heat stress in the local government. Therefore, it’s based on these facts that the researcher is prompted to undertake this research to ascertain the level of the stress in the City and inform the urban planners to improve on future planning in the metropolis.

Aim and Objectives

The main aim of the study is to assess diurnal heat stress condition in urban core of Kano Metropolis for future planning of the city.

The aim is achieved through the following objectives.

i. To identify and calculate the mean temperature and humidity variables for determining the Heat stress condition.

ii. To highlight spatio-temporal level and vulnerability of outdoor heat stress condition.

iii. Recommends some strategies for improving thermal environment of the city.

Study Area

Kano Metropolis being the capital of Kano state, was created in 1967 from the defund Northern Region is one of the nerve centers of commercial activities in Nigeria, as the famous Tran-saharan trade route, linking sub Saharan Africa with the Mediterranean coast. The old city is surrounded by a 22kms long wall, built in the 13th century and sprawl of new extensions outward around the old city, Alhaji (2006).

It is located between latitudes 11°40’N and 12°25’N and 8°30’E and 8° 45’E (see Figure below). The boundary of Kano metropolis keeps on changing with time due to rapid urbanization processes (Mortimore, 1989).The metropolis is presently made up of about eight local Governments and surrounded by eight rural local governments as potentially urbanized zones, Un-habitat, (2006). The Six of them: Kano Municipal, Gwale, Dala, Tarauni, Nassarawa, Fagge are fully urbanized ones. While two: Kumbotso and Ungoggo are the partially urbanized local government areas.
Methods and Procedures

The data for this study were collected from the primary source of data through measurement and observation of climatic variables (temperature and humidity) and physical observations on physiological and hydrological features. Nine sites were selected by cluster sampling method. The Meteorological data were collected simultaneously across the sample sites at interval of 3 hours (i.e. 3 am, 6 am, 9 am, 12 noon, 3 pm, 6 pm, 9 pm and 12 midnight) each in the months of April, August, October and December. Heat stress condition variables were taken through the measures of dry bulb (Ta) and wet bulb (Tw) temperature. While the Secondary sources were generated through consulting published articles, text books, Journals, Some relevant students works (projects), other relevance thesis, internet browse as well as website blogs etc.

Both in-door and out-door conditions were measured and recorded. The result of the values taken at different periods and locations were subjected to means and discomfort index formula is given below

\[ DI = 0.5tw + 0.5ta \] ............................................. Eq 1

The formula is adopted by Yoram (2006) as discomfort index standard.

Where by Tw = means wet bulb temperature

Ta = Dry bulb temperature value.

The calculated value are subjected to the ranges provided in the (DI) index below

- DI value of 22 units: Means no heat stress encounter
- DI value of 23 – 24 units: Means mild sensational of heat
- DI value of 25 – 28 units: means moderate heavy heat load, people feel very hot, physical work may be performed with some difficulties.
- DI value of above 28: Indicate several heat loads.

Finally, the results were subjected to Analysis of Variance and t-test for assessing differences between diurnal hours in one hand and between in-door and out-door on the other hand, respectively.
Results and Discussions  
Mean out-door Heat Stress Condition Patterns  
Introduction  
In this section, the diurnal out-doors heat stress characteristics based on seasons and metropolis zones were presented and discussed. The discussion also reveals the Discomfort vulnerability variations between seasons, diurnal hours and major zones in the metropolis. Figure 1.1 reveals the detail information about the issues highlighted. Finally analysis of variance results are presented for detecting the variations between season and zones of the metropolis.

4.4.2 Urban-core mean diurnal heat stress condition  
Figure 1.1 indicates urban core mean seasonal exposures to heat stress on diurnal hours from 3:00 am to 12:00 mid night periods have reveal a spectacular results of geographical interests.

![FIG. 1.1 Urban core mean seasonal / diurnal heat stress condition (outdoor) SOURCE:FIELD WORK,2013](image)

a. Hot and dry season (April)  
For instance during hot and dry season the figure shown that there is no heat stress free hours in the zone. The periods around from 9:00am to 9:00pm marked the time when the zone is exposed to the severe heat stress condition. The period around early day hours and late night hours are the only hours when the zone was subjected to moderate stress condition. The 6am hour is the period around which the urban core has the lowest Discomfort index; while 3:00pm the severest hours of vulnerability to heat stress problems. This is not surprising if one considers the agglomeration of urban industrialization and anthropogenic sources of heat and coupled with compacted settlements and heat absorbent building materials.

b. Warm and wet season (August)  
The figure displays that the urban core witnessed free stress condition in the period of earliest day and late night hours. This may be due to the absence of the sunlight and less auto
mobiles and industrial operations in the city. The 3:00pm is the only hour around which the zone came under severe heat stress condition. The remaining hours have stress exposure from mild to moderate levels but with 3:00pm having the severest vulnerability while 6am with lowest D.I value.

c. **Warm and dry season (October)**

During this season, it is observed that the early hours (6:00 am) was the only period with lowest D.I value and stress free condition. The 9:00 am, 9:00 pm and 12:00 mid night are hours around which the zone came under mild to moderate stress condition. The period when the urban inhabitants came under heat stress condition coincided with period around 12:00 Noon, 3:00 pm, and 6:00 pm. Thus the lowest D.I value is recorded around 6am while the highest was recorded around 3 pm.

d. **Cool and dry season (December)**

The figure reveals that most of the early day and latest night hour’s workers are free from stress problems. But for the 12:00 noon and 6:00 pm the coreurban people are prone to mild or moderate heat stress condition. The severe stress period is only observed at the period by 3:00 pm hour.

**Statistical Analysis**

Analysis of variance (2-way ANOVA) was conducted to test the following hypothesis: $H_0$: there is no significant difference in the heat stress condition between seasons and diurnal times.

The 2-way has explored that there is statistical significant differences between seasons and diurnal times. Seasons were divided into a. cool and dry, B. warm and wet, c. warm and dry and d. hot and dry. The result revealed that there was statistically significant main effect for seasons {F (3, 99.033), P= 0.0001} and diurnal {F: (7, 52.504), P= 0.0001}. Refer to table 1

| Table 1: Tests of Between-Subjects Effects |
| Dependent Variable: Heat Stress Condition |

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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<tr>
<td>Corrected Model</td>
<td>887.080$^a$</td>
<td>10</td>
<td>88.708</td>
<td>66.463</td>
<td>.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>21213.288</td>
<td>1</td>
<td>21213.288</td>
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<td></td>
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<tr>
<td>Diurnal</td>
<td>490.542</td>
<td>7</td>
<td>70.077</td>
<td>52.504</td>
<td>.000</td>
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<tr>
<td>Season</td>
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<td>3</td>
<td>132.179</td>
<td>99.033</td>
<td>.000</td>
</tr>
<tr>
<td>Error</td>
<td>28.029</td>
<td>21</td>
<td>1.335</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22128.397</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>915.109</td>
<td>31</td>
<td></td>
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</tbody>
</table>

a. R Squared = .969 (Adjusted R Squared = .955)
Table: 2 Multiple Comparisons

Dependent Variable: Heat Stress Condition

Tukey HSD

<table>
<thead>
<tr>
<th>(I) Season</th>
<th>(J) Season</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
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<td>Warm and Wet</td>
<td>Hot and Dry</td>
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<td>.57765</td>
<td>.000</td>
<td>4.6779</td>
<td>7.8980</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Warm and Dry</td>
<td>3.3212*</td>
<td>.57765</td>
<td>.000</td>
<td>1.7111</td>
<td>4.9313</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cool and Dry</td>
<td>9.5041*</td>
<td>.57765</td>
<td>.000</td>
<td>7.8940</td>
<td>11.1142</td>
<td></td>
</tr>
<tr>
<td>Hot and Dry</td>
<td></td>
<td>-6.2880*</td>
<td>.57765</td>
<td>.000</td>
<td>-7.8980</td>
<td>-4.6779</td>
<td></td>
</tr>
<tr>
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<td>Warm and Dry</td>
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<td>.57765</td>
<td>.000</td>
<td>-4.5768</td>
<td>-1.3566</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cool and Dry</td>
<td>3.2161*</td>
<td>.57765</td>
<td>.000</td>
<td>1.6060</td>
<td>4.8262</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hot and Dry</td>
<td>-3.2161*</td>
<td>.57765</td>
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<td>Warm and Wet</td>
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<tr>
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<tr>
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<td>Hot and Dry</td>
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<tr>
<td>Cool and Dry</td>
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<td></td>
<td>Warm and Dry</td>
<td>-6.1829*</td>
<td>.57765</td>
<td>.000</td>
<td>-7.7929</td>
<td>-4.5728</td>
<td></td>
</tr>
</tbody>
</table>

Based on observed means.

The error term is Mean Square(Error) = 1.335.

*. The mean difference is significant at the 0.05 level.

The estimated marginal Means of heat stress condition among four seasons i.e. hot and dry, warm and wet, warm and dry and cool and dry show significant interaction effects. Refer to figure 1.3
SUMMARY, CONCLUSION AND RECOMMENDATIONS

The summary of findings

The study focused on the assessment of spatio-temporal air heat stress Condition and associated implications to mankind in Kano metropolis. It began with assessment of temperature pattern and mapping of the urban heat island before it fundamentally assessed the Heat stress condition across the metropolis zones. The following findings are deduced from the study:

The metropolis Heat stress conditions in out-door has revealed the following D I ranges: 14.2 – 37.5°C, 14.4 – 34.9°C and 12-34.7°C Discomfort index values for Urban Core, suburban and rural surrounding, respectively. While for seasons, the D.I Values ranges of 24.9-37.5°C, 18.1-28.3°C, 18.6-34.6°C and 12-30.1°C during Hot-dry, warm-wet, warm-dry and cool-dry season, respectively.

Thus, the inhabitants of the urban core are more liable to heat stress disorder than any of the metropolis zones even though all the zones values exceed 28°C (severe stress limit). While the rural sites and airport outlier are the coolest of all the sites in the study area.

In the study area, areas of the business nerves (CBD), Industrial clusters (Bompai and Sharada) and densely populated axes (Dala and Shahuci) are the warmest of all the metropolitan sites. These were attributed to numerous automobiles and anthropogenic sources of heat and tall congested built-up.

Statistical analysis indicate significant difference of heat stress condition between seasons, time of the day and across the metropolis zones.

Conclusion

It can be emphatically concluded that, the heat stress exists at Kano metropolitan zones as was established in temperate area of Europe and other tropical localities. It existence with spatio-temporal variations is the functions of meteorological and non-meteorological factors as lamented by Ayoade, 2008.

The phenomena was found to be severe in the city down town than at the rural zone, during the mid-day/evening hours and more serious during the hot-dry and warm-wet seasons. Thus, the rural sites and airport outlier are the coolest of all the sites in the study area.

The phenomenon has impacted the inhabitants of the metropolis to be potentially subjected to heat stress disorders especially at the urban core and during the noon hours and hot-dry and warm-wet seasons of the year.

The population of the study area, its demographic characteristics, land use types, mode of buildings, city technology and inhabitants body responses are fundamental to the assessment of future trend of the heat stress in the city under study especially if global warming and rapid population growth are also put under consideration.

Recommendations

The following are recommended for curbing the heat stress escalation and the potential solutions on how to make the metropolitan environment sustainable and comfortable for habitation.

The governments in collaboration with urban planners to imbibe and implement climatic aspects in designing and execution of city/town planning and sensitized them to bridge the communication gaps existing between them and beneficiaries as opined by Christina (2004) and Ayoade (2012, 2008 and 2004). By this the planners should also ensure adequate ventilation with hazard free plan, maintain air quality (reduce pollution) and improve thermal situation in an in-door environment. In addition to that, Planners should be
making a composite design and plan according to the expected future climate (by combining traditional and modern architecture and civil engineering) in building technology.

Intercity street spacing and inter housing spaces should be encourage and ensured by the town planners for maintaining ventilation with the view to providing effective fresh air circulations especially in the densely populated areas of the city. Massive Planting of flowers and tall economic trees (for not intercepting room ventilation system) in available city spaces: streets, parks, back/front yards of houses and institutional lands as the carbon sinks of the city as opined (Aliyu, 2005).

Households should construct / paint with light coloured materials, green-roof (eco-friendly) for increasing heat absorption and reflectivity of solar energy on one hand and on the other to discourage flooring of city spaces and compound with concrete, tar and asphalts materials which are heat retentive in nature.

Governments should ensure the establishment of advance automated weather system in various urban land uses clusters, in the tertiary institutions and other strategic suburban and rural local governments’ centres. This serves as a bench-mark for subsequent establishment of heat-wave detection, monitoring, preparedness and public awareness system unit in the various states ministry of environments for weather predictions and heat alert to the public. Subsequently follow by establishing heat stress disorders specialized hospitals at the areas potentially vulnerable to severe heat stress condition.

Governments and local community should embark on mass media sensitization about heat stress effects and prompt severe heat alert to the public on emergency, especially in the rural and densely populated areas. Finally, there is vehement need for Non-Governmental Organizations to link up with governments and Community based Organization for establishing Pollution detection and controls, drainages and infrastructures Boards for supplementing Government efforts.
References
YOUTH RESTIVENESS AND INSECURITY IN NIGERIA: THE CASE OF ILLEGAL OIL BUNKERING AND VIOLENT ATTACKS ON IGBOLOMU COMMUNITY, LAGOS NIGERIA

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Abstract
Youth restiveness has become a recurrent problem resulting in insecurity of lives and property in Nigeria. This study examines the plight of victims of youth restiveness in Igbo-Olomu which previous studies on youth restiveness have not examined. The study was conducted at Igbo-Olomu community where violent attacks were perpetrated by restive youths who have been involved in illegal oil bunkering in the community for years. Data were gathered via in-depth and key informant interviews. Findings show that violent attacks were unleashed on the residents of Igbo-Olomu community by militants involved in illegal oil bunkering in the community. The militants who were on a revenge mission violently attacked the community for allegedly disclosing information about them to the police who attacked them. Following the attacks on the community by the militants, hundreds of residents were internally displaced and exposed to the negative effects of internal displacement; many lost their lives while several others sustained various degrees of injury. The mayhem later degenerated into kidnapping for ransom and rape, robbery and second displacement after the attackers were thought to have sheathed their swords and the subsequent return of the displaced persons. The intervention of the police who were deployed to quell the violence was inadequate as they were stationed on the road leading to the community while kidnapping, robbery and attacks were going on, on the streets.

Key words: Youth restiveness; insecurity; Igbo-Olomu; illegal oil bunkering; attacks

Introduction
People are predisposed to adopt illegal means if opportunities are not available for them to meet their needs through legitimate means. The former president of Nigeria, Chief Olusegun Obasanjo was obviously buttressing this point when he stressed that West African countries are sitting on a “keg of gun powder” by virtue of their failure to find solution to the menace of massive unemployment in the region (Danielle Ogbeche Daily Post, July 5, 2016). He stated thus, “on the issue of unemployment, particularly youth unemployment, I have maintained that all of us in West Africa, in our different countries and indeed in Africa, we are sitting on a keg of gun powder for as long as we do not pay adequate attention to youth unemployment. A situation where more than 50 per cent of our youths are unemployed is extremely dangerous. We now have a situation in parts of West Africa where people now are
dying of starvation”. It is tantamount to inviting social vices if the youth who should channel their energies to productive endeavours through which they could meet their material needs are not provided with the opportunities to do so. Due to lack of opportunities for Nigerian youth to meet their material needs as well as perceived marginalization, the Nigeria youths have resorted to various illegal means to survive. Poverty which results from the state of the economy remains one of the major reasons behind youth restiveness in Nigeria. Youth restiveness has taken different forms in Nigeria such as kidnapping and hostage taking, armed robbery, violent protests, illegal oil bunkering etc.

This study focuses on oil bunkering which has led to violent killing and displacement of Igbo-Olomu residents and has seriously sabotaged Nigerian economy over the years. Bunkering has to do with the fuelling of Ships. It is a legal trade that involves provision of fuel to vessels by authorised or licensed dealers. Human rights Watch (2003), describes bunkering as the process of filling up a ship with oil (or coal). Oxford English Dictionary refers to oil bunkering as a legitimate process whereby a duly licensed operator provides fuels, water and lubricants (bunkering services) for marine services on request. Therefore bunkering is simply the fuelling of ships. It could be likened to establishing a floating fuel service station on the high seas or at coastal jetties to supply fuel and provisions including water to ships. Bunkering in itself is a legitimate and legal business which only licensed dealers should engage in and should be operated in line with guidelines laid down by the government. In other countries, bunkering is a thriving business and huge source of revenue to the government. According constitutional provision of the Federal Republic of Nigeria, the ownership and control of all minerals and oil, in, under and upon any land, and of rivers, streams and watercourses in Nigeria are vested in the federal government, under Section 44(3) of the 1999 Constitution of the Federal Republic of Nigeria as originated in the 1946 Mineral Ordinance, (Human rights Watch, 2003). By this constitutional provision therefore, oil extraction without license from the Federal Government is illegal just as is trading on crude or refined oil by anyone not licensed to do so.

However, just like other legitimate businesses are bedeviled by illegality, oil bunkering is not an exception. Illegal oil bunkering is used to refer to oil theft. It has to do with the stealing of petroleum products for private gain. Oil theft according to Asuni (2009) refers to oil taken from pipelines or flow stations, as well as extra crude oil added to legitimate cargo that is not accounted for. Ugwuanyi (2013) stated that oil theft, also known as illegal bunkering, is the act of hacking into pipelines to steal crude which is later refined or sold abroad. It is an illicit trade that involves the theft of crude oil and its derivative products through a variety of mechanisms. The Nigerian petroleum industry has been bedeviled by oil pipeline vandalism and oil theft. According to Ogbeni: A total of 16,083 pipeline breaks were recorded within the last 10 years adding that while 398 pipeline breaks representing 2.4 per cent were due to ruptures, the activities of unpatriotic vandals accounted for 15, 685 breaks which translated to about 97.5 percent of the total number of cases (Ogbeni, 2012). Nigeria loses over 300,000 barrels of crude oil per day to oil theft, pipeline vandalism and related criminal vices in the country’s oil sector (Akpan 2013; Olusola, 2013; Omenwingie and Nda-Isaiah, 2013; Okere, 2013). By virtue of the huge loss of revenue caused by oil theft, the Federal Government has been making efforts to curb oil theft in the country by spending huge amount of money to secure the oil pipelines. However, despite the efforts of the Federal government to curb the illegal diversion of oil in the Niger Delta by increasing its security spending in recent years and devoting millions of naira annually to hire private security firms as well as equipping men and officers of the Nigeria Security and Civil Defence Corps (NSCDC), incessant destruction of pipelines and other oil facilities across the country as well as trade in stolen oil by criminal cartels with international connections have continued unabated (Ugwuanyi, 2013; Mernyi, 2014) .
Previous studies have focused on the negative impacts of illegal oil bunkering perpetrated in the Niger Delta area by militants on Nigerian economy, international oil companies and the environment. This study focuses on the plight of Igbo-Olomu residents who have been victims of violent attacks perpetrated by oil bunkerers, with many of the residents killed; hundreds fled their homes while several others sustained various degrees of injury. The attacks later degenerated into kidnapping for ransom and rape, robbery and second displacement.

**Theoretical framework**

**The Strain Theory**

The strain theory proposed by Robert Merton states that deviant behavior is an inevitable product of the strain members of the society feel when the society fails to provide legal means of attaining culturally valued goals. According to this theory, members of society strive to achieve success which is valued in societies and measured in terms of wealth and material possessions. In all societies, there are institutionalized means of reaching culturally defined goals. When society fails to provide the socially acceptable means of achieving goals, there is the tendency to reject the ‘rules of the game’ and to strive for success by any available means (Haralambos and Holborn, 2004). When rules no longer control behavior, the result is deviance. Merton however acknowledges that not all individuals would deviate by virtue of lack of legal means of achieving goals. He outlined four possible responses to this situation: conformity, innovation, ritualism, retreatism, and rebellion.

This study focuses on the second response mentioned above which is ‘innovation’. According to Merton, this response entails rejection of normative means of achieving success and adoption of crime as a means of achieving goals by virtue of lack of means to legally achieve goals.

Youth restiveness in Nigeria, illegal oil bunkering inclusive, could be strongly attributed to the failure of the government at all levels to provide opportunities for the youth of this country to meet their material needs through legal means. There is widespread poverty, high rate of unemployment, lack of or grossly inadequate infrastructural facilities, etc. Kew (2006) asserts that the political leadership of Nigeria has failed in its responsibility of meeting the needs of the people. Buttressing this point, Ogbeidi (2012) identifies unwillingness and inability of Nigerian leaders to render required services to Nigerians satisfactorily as a problem facing Nigeria. According to Inibehe and Ibrahim (2014), the persistent increase in the level of poverty that has bedeviled the country is a result of the failure of various leadership regimes at various levels in the country. Chief Olusegun Obasanjo asserts that West African countries are sitting on a “keg of gun powder” by virtue of their failure to find solution to the menace of massive unemployment in the region (Danielle Ogbeche, Daily Post, July 5, 2016). According to him, “on the issue of unemployment, particularly youth unemployment, I have maintained that all of us in West Africa, in our different countries and indeed in Africa, we are sitting on a keg of gun powder for as long as we do not pay adequate attention to youth unemployment. A situation where more than 50 per cent of our youths are unemployed is extremely dangerous. We now have a situation in part of West Africa where people now are dying of starvation”. Poverty which results from the state of the economy remains one of the major reasons behind youth restiveness in Nigeria.

According to Wikipedia (2016), poverty refers to general scarcity, dearth, or the state of one who lacks a certain amount of material possession or money. Poverty could be absolute or relative. Absolute poverty of destitution refers to the lack of means necessary to meet basic needs such as food, clothing and shelter. Relative poverty takes into consideration
individual social and economic status compared to the rest of society (Wikipedia, 2016). Similarly, Omobowale (2014) refers to it as a state where the people are deprived of the good things of life, and the ability to achieve the desired state of wellbeing and socially acceptable standard of living.

A country cannot boast of development if the citizens of that country are living in poverty. Stressing the role of development in enhancing the lives of the people, Seers (1969) in a World Conference of the Society for International Development held in New Delhi, India argued as follows: The question to ask about a country’s development are therefore: “What has been happening to poverty? What has been happening to unemployment? What has been happening to inequality? If all three of these have declined from high levels, then beyond doubt, this has been a period of development for the country concerned. If one or two of these central problems have been growing worse, especially if three have, it would be strange to call the result development even if per capita income doubled”

In this light, Ohiorhenuam (1984) states that the fundamental reason for creating a nation-state is to improve the living conditions of its citizens, which makes development a basic national objective.

With the return of civilian rule in Nigeria in 1999, poverty reduction was one of the major targets which the development programmes of the administrations discussed above. Each of the successive administrations identified strategies through which poverty was to be tackled. Regrettably however, poverty has continued to ravage the country despite the development programmes which successive governments initiated to eradicate it. The failure of the development programmes has been attributed to a number of factors among which are poor planning and monitoring of programmes, inadequate funding, corruption, poor accountability, poor implementation, abandonment etc. On this note, the socio-economic challenges facing the Nigerian state could be boldly attributed to the actions and inactions of the leadership class that has managed the affairs and wealth of the country since independence (Inibehe and Ibrahim, 2014).

One of the major causes of widespread poverty in Nigeria is the failure of political leaders to efficiently manage the wealth of the country through satisfactory implementation of policies and programmes that would enhance the lives of the people. Kew (2006) asserts that the political leadership of Nigeria has failed in its responsibility of meeting the needs of the people. Buttressing this point, Ogbeidi (2012) identifies unwillingness and inability of Nigerian leaders to render required services to Nigerians satisfactorily as a problem facing Nigeria. According to Inibehe and Ibrahim (2014), the persistent increase in the level of poverty that has bedeviled the country is a result of the failure of various leadership regimes at various levels in the country. Since the return of civilian rule, the rate of poverty in Nigeria has been high and also fluctuates. Inibehe and Ibrahim (2014) compiled average poverty rate per leadership in Nigeria. According to them, Nigeria experienced a drop in the poverty rate from 70% between 1998 and 1999 to an average of 56.1% during the Obasanjo’s democratic rule between 1999 and 2007. This according to them was as a result of the regime’s fight against corruption among leaders at different levels of government in the country, increased foreign investments and improvement in agriculture supported by government policies. During Yar’ adua’s administration (2007 to 2010), the rate of poverty skyrocketed to 69.67%. Nigeria also experienced high rate of poverty between 2010 and 2011 during Goodluck Jonathan’s first year of administration after the death of Yar’ adua. During that period, poverty rate was estimated at 71.5%. That period was also characterized by as political crisis, corruption and terrorism (Inibehe and Ibrahim 2014). The National Bureau of Statistics groups the Nigerian poor into two: the relatively and the absolutely poor. According to NBS report (2012) relative poverty is defined by reference to the living standards of majority in a
given society. Nigeria’s relative poverty measurement increased to 69% (or 112,518,507 Nigerians) in 2010 from 54.4% that it was in 2004. The report states that North-West and North-East geo-political zones recorded the highest poverty rates in the country with 77.7% and 76.3% respectively in 2010, while the South-West geo-political zone recorded the lowest at 59.1%. In terms of absolute poverty, 60.9% representing 99,284,512 Nigerians were absolutely poor in 2010 with the North-West and North-East recording the highest rates at 70% and 69% respectively, while the South-West had the least at 49.8%. Using the relative, absolute and dollar-per-day poverty measures, NBS also estimated further rise of poverty to about 71.5%, 61.9% and 62.8% respectively in 2011. However, poverty rate dropped to 33.1% between 2012 and 2013 according to World Bank’s Nigeria Economic report based on a panel survey of 5,000 households that was carried out in 2010/2011 and 2012/2013 as part of the General Household Survey of the Nigeria National Bureau of Statistics. The report added that while the Southern part of Nigeria has relatively low poverty rates, ranging from 16% in the South West to 28.8% in the South East, poverty rates in the North West and North East were 45.9% and 50.2%, respectively.

Consequent upon poverty and lack of opportunities for the youths to meet their material needs, many of them have resorted to violent means of doing so, including illegal oil bunkering being perpetrated in different parts of the country especially the Niger Delta region and Lagos State. The case of illegal oil bunkering in Igbo Olomu degenerated in June 2016 into unleashing of violent attacks on the residents of that community which led to the death of many and displacement of hundreds of them.

Literature review

Oil theft according to Asuni (2009) refers to oil taken from pipelines or flow stations, as well as extra crude oil added to legitimate cargo that is not accounted for. Ugwuanyi (2013) stated that oil theft, also known as illegal bunkering, is the act of hacking into pipelines to steal crude which is later refined or sold abroad. In his contribution, Obasi (2011) stressed that “illegal oil bunkering” as used in Nigeria is a generic term encompassing not only unauthorized loading of ships but also all acts involving the theft, diversion and smuggling of oil”. Buttressing the local and international nexus, use of sophisticated technology, and advancement in the process of illegal oil bunkering, Ikelegbe (2005) stated as follows:

“There is a large scale illegal local and international trading on crude oil. This has grown from a few amateurs in the 1980s who utilized crude methods to extract crude from pipelines to a very sophisticated industry which uses advanced technologies to tap crude and sophisticated communications equipment to navigate through the maze of hundreds of creeks, rivers and rivulets. The oil theft syndicates have also graduated from boats and barges to ships and large oil tankers in the high seas. The stealing and smuggling of crude has become very extensive and large scale since the late 1990s.”

From the foregoing, therefore, oil theft refers to activities that involve the theft or sabotage of crude oil, facilities or installations in form of illegal bunkering, pipeline vandalism, fuel scooping, illegal refining, etc. Illegal oil bunkering is the most commonly known form of oil theft and it involves direct tapping of oil.

According to the Nigerian Economic Summit Group (NESG), theft of about 100,000 barrels of crude oil valued at about $2.8 million occurs on a daily basis (Subair & Adesanmi,
2003). By virtue of the reliance of Nigerian economy which according Lawal (2004) contributes more than 80% to the revenue of the country, the loss of huge amount of crude oil to theft is worrisome. Furthermore, SDN (2013) reports that the vast majority which is about 75% of the stolen oil is been sold internationally, but approximately 25% of it stays in the Niger Delta to be refined and sold locally. Lending credence to the above assertions, Katsouris and Sayne (2013), argues that Nigerian crude oil products are stolen in large scale, and exchanged for heavy arms or exported illegally abroad with few of the quantities consumed locally.

This shows the international dimension which business of illegal oil bunkering in Nigeria has assumed. The bunkers tap directly into pipelines away from oil company facilities, and connect from the pipelines to barges that are hidden in small creeks with mangrove forest cover (Human rights Watch 2003). “The business of oil bunkering is as opaque and murky as the many gaps in analysts’ knowledge of its operations” (Asuni, 2009).

**Types of illegal oil bunkering**

Asuni (2009) identified three different set of actors in oil theft in the Niger Delta region. These are: high profile international (large-scale tapping of pipelines to fill large tankers for export); national syndicate (excess lifting of crude oil beyond the licensed amount) and the local actors (small-scale pilfering for the local market). These three types of actors perpetrate the following three types of illegal oil bunkering: Large-scale tapping of pipelines to fill large tankers for export, excess lifting of crude oil beyond licensed amount, and Small scale pilfering for local markets.

The large-scale tapping of pipelines to fill large tankers for export refers to the high profile international dimension of illegal oil bunkering which involves large scale-tapping of pipelines to fill large tankers for export. This form of oil theft is done by either hacking directly into the pipeline or by tapping the well head. The top structure of the pipeline called the Christmas head is removed, this is done to enable them insert a hose in which they will use to siphon the oil (Asuni, 2009). At this point the oil is placed in small barges and taken out to the sea, to be transferred onto large ships to be exported lurking out of sight of the authorities (Asuni, 2009). In most cases the bunkers are being given both money and weapons in return for their oil. They are later exported to other countries to be refined. This type of oil theft seems to be more dangerous by virtue of the exchange of weapons and drugs that characterise it. This type of operation involves foreign syndicates. While the tapping and loading of illegal oil is done by the youths in the Niger Delta, the transport, finance and laundry of money is done by the international players.

The excess lifting of crude oil beyond licensed amount involves excess lifting of crude oil beyond licensed amount. This type of oil theft is perpetrated by national nationals such as staff of the oil companies and top government officials who commit the crime using forged bill of lading. Bill of lading is a document that is issued by a carrier to a shipper, listing and acknowledging receipt of goods for transport and specifying the terms and delivery on it (Asuni, 2009).

Small scale pilfering for local markets is committed by the local actors who engage in small-scale pilfering for the local market. This type of illegal oil bunkering is the oldest type of oil theft in the history of oil theft in Nigeria. It is also the most controversial type, because the stolen oil is not exported outside Nigeria. It is rather refined and sold locally (Asuni, 2009b). It is this type of oil bunkering that is said to cause more environmental degradation. This is because, it is refined locally by the locals who have no experience in following the due process to reduce oil spillage which causes environment degradation. Hence, Just like other players, small scale operations also require a litany of accomplices, in most cases the bunkers have an informant working in some of the oil companies who provide the bunkers
details about the company’s security patrols, in exchange for a significant pay-out. To maintain secrecy the communities must be paid off and a local militia or security force is hired to patrol the area. Hence, when the crude oil is refined by the locals, the oil is sold at a cheaper rate than the normal market price in Nigeria.

The foregoing shows that each type of illegal oil bunkering is perpetrated by different category of people. At the international level, it involves people from outside Nigeria, some corrupt political elites and youths. At the national level, it involves the military, staff of the oil companies, top government officials, retired military men and also some community members, whilst at the local level which is the least and most significant of them, it involves the local militants who are mainly youths. Some of the oil company ‘staff, some community leaders such as chiefs and the kings as well as some political elites are also among. High profile Nigeria politicians have allegedly been covertly working with the local militants to commit the crime.

This study focuses on the third type of oil bunkering (small scale pilfering for local market) perpetrated by saboteurs, mostly the youth in collaboration with their team of accomplices.

Factors engendering oil theft in Nigeria

Various factors have been identified as the factors that occasion oil theft in Nigeria. Brock (2012) attributed the upsurge of oil theft to years of neglect, marginalization and underdevelopment of the Niger Delta by the Federal Government and the Multinational Oil Companies (MNCs) operating in the region. According to him, criminal groups, called “oil bunkerers” in our local parlance, has evolved in the creeks and along our territorial waters, specializing in stealing, illegal refining and transporting of Nigeria’s crude oil to the international black market. Similarly Vidal (2013) stated that some Niger Delta communities freely admit their role in the theft of oil but blame continuing poverty and pollution for their actions. “The government and oil companies are collecting our oil and we don’t have jobs or money so we have to collect the oil and refine our own”, says a man in the village of Bolo near where an illegal refinery was set up. Apparently, due to joblessness and poverty, the Niger Delta youth see illegal oil bunkering as a legitimate business.

Adegbite (2013) identified the following as factors responsible for persistent perpetration of oil theft in Nigeria, especially in the Niger Delta region: poverty, ignorance, greed, lack of respect for national economic survival, get rich syndrome, lack of gainful employment, exploiting the loopholes in the criminal justice system to circumvent the law, evolving culture of impunity from the wrong perception that some people are above the law, weak institutional structure to checkmate criminals, malice, and bad governance (corruption, incompetency), just to mention a few. Similarly, Igbuku (2014) also identified poverty, community-industry expectation mismatch, corruption, unemployment, ineffective law enforcement and poor governance as the factors responsible for oil theft in Nigeria. According to him, high unemployment, for instance has created a huge population of idle young people who are easily lured to oil related crimes. These crimes in turn are reinforced in the absence of clear deterrent measures, arising from the non-prosecution of alleged perpetrator. Mernyi (2014) in his contribution stated as follows:

‘Some experts in the oil sector are in consensus that the persistence upsurge of illegal bunkering in the Niger Delta is due to high levels of youth unemployment, armed ethnic militia, ineffective and corrupt law enforcement agencies and other state actors who are often part of an international syndicate. They argued that oil theft and pipeline vandalism continued to thrive in Nigeria in spite of government’s efforts because of some vested
interest of powerful persons involved in the business and the lack of political will to deal with it. They believed that the Nigerian leaders especially the political class is benefiting from illegal oil bunkering hence lack political will to confront it. They further argued that if the leaders are not benefiting directly or indirectly, they must have come up with measures or legislation to stop the menace.”

Worthy of note among the causes of illegal oil bunkering is poverty. Many scholars have identified poverty as one of the factors engendering oil theft. It is therefore worthwhile to look at the incidence of poverty in Nigeria despite the various development programmes initiated by the government since the return of civilian rule in the country.

Oil theft and Socio-Economic Losses to the Nigerian State

One of the factors militating against Nigerian economy is oil theft. Stating how oil theft has adversely affected export of crude oil by Nigeria, Olatunji (2013) pointed out that due to the loss of oil revenue to the oil thieves, Nigeria can no longer export crude oil above two million barrels per day as opposed to budgetary provision of 2.5 million barrels per day. Nigeria is no longer selling enough crude oil to meet budgetary provisions. According to Duru (2013; Okere, 2013), the socio-economic impacts of oil theft include environmental degradation, loss of economic activities for the communities, loss of revenues to the government resulting in inadequate funding for development initiatives, increased criminality in Niger Delta region, lack of security due to illegal activities and infiltration of international collaborator and bad image for the country. As a result of crude oil theft, maintenance of oil terminals and declaration of force majeure, the money shared by the three tiers of government in Nigeria in 2013 was erratic. In the first quarter of 2013 alone, Nigeria lost about N191 billion ($1.23 billion) due to drop in crude oil production, arising from incessant crude oil theft and vandalism along the major pipelines within the Niger Delta, the Nigerian National Petroleum Corporation (NNPC) disclosed. Daily crude oil production during the period fluctuated between 2.1 and 2.3 million barrels per day (mbpd) compared with the projected estimate of 2.48mbpd. Expectedly, the fall between actual production and forecast in first quarter of 2013 resulted in a drop in crude oil revenue of about $1.23 billion (N191 billion) that should have accrued to the Federation Account (Mernyi, 2014).

The government is failing to meet some of its obligation and domestic debt is rising rapidly. For instance, the country targeted, according to its financial plans for the year 2013, 2.53 million barrels per day production, a projection it failed to meet due to oil theft. Ogbeifun (2014) noted that the negative impacts of vandalism and crude oil theft include the destruction of aquatic and farmlands, economic sabotage which explains the shortfall of Nigeria’s 2014 budget from $29.3 billion in 2013 to $23.3 billion in 2014 and divestments by some International Oil Companies, IOCs, with attendant job losses thereby compounding the unemployment situation in Nigeria. The colossal loss of revenue to oil theft was succinctly captured by Gaskia (2013). He aptly stated that: “Over the past 3 to 6 years, in particular since the commencement of the presidential Amnesty programme for the Niger Delta, the subsequent inducement of a reduction in armed militancy in the region, and the consequent rise in the incidences of crude oil theft, we have been told by the highest responsible authorities (NNPC, Ministers of Finance and Petroleum Resources, CBN Governor etc.) that the country has been losing outrageous quantities of crude oil to oil theft and pipeline vandalism. In 2009 and 2010, the figures claimed ranged from 100,000 barrels per day to 200,000 barrels per day of crude oil. By 2012 this figure had risen to between 200,000 and 300,000 barrels per day of crude oil and now the figure given for 2013 is 400,000 barrels per day of crude oil lost to oil theft. This represent between 20% and 25% of our total daily
production capacity of between 2 and 2.5 million barrels per day of crude oil. It also amount to an annual revenue losses of about $14 billion i.e., #2.24 trillion, that is almost half (50%) of the annual federal government budget. This is a colossal loss by any standards”.

In the same vein, the Nigerian National Petroleum Corporation (NNPC) stated that the federal government lost over $11billion (about N1.72trillion) worth of oil revenue in 2013. The former group managing director of the corporation, Andrew Yakubu, who gave the figure, attributed the loss to incessant attacks on major pipelines and crude oil theft in the Niger Delta (Izuora, 2014). Similarly, the Coordinating Minister of the Economy and Minister of Finance, Mrs. Ngozi Okonjo-Iweala said that in 2013 crude oil theft and associated deferred production was estimated at over 300,000bpd.

This costs the Nigerian government some $12 billion annually in terms of deferred production revenues and the cost of pipeline repairs (Igbochi, 2014). Although, these figures of oil theft and illegal bunkering are not premised on any empirically verifiable statistics of Nigeria's oil production, nevertheless the figures are mindboggling. Despite the different estimates quoted by different authorities, what we can draw is that the volume of stolen oil in the Niger Delta region of Nigeria is enormous and these have significant adverse impact on socio-economic development of Nigeria.

**Economic losses to the International Oil Companies**

Pipeline vandalism and oil theft have adverse effects on all the legal players in the oil sector. The International Oil Companies which have invested huge amount of money in the oil sector have incurred financial losses due to the activities of the economic saboteurs. According to Alohan (2013), attacks on oil production facilities have led to several and declaration of force majeure by the International Oil Companies (IOCs), ultimately resulting in loss of revenue to the oil companies as well as the government. Force majeure is a legal clause that allows a company to walk away from a supply contract – owing to theft and sabotage. Consequent upon the incessant oil pipeline vandalism and oil theft in the Niger Delta region where International Oil Companies are located, the oil companies have had to resort to several shut-ins and shut-downs of pipelines and crude oil production respectively. This has resulted in decline in production capacity as well as loses of revenues to the companies. International oil companies (IOCs) operating in Nigeria are counting heavy losses as surge in crude oil theft and supply disruption have impacted on their earnings Asu (2013). In September 23, 2013 Shell (Nigeria’s Biggest International Oil Company) had to close its trans-Niger pipeline, which should carry 150,000 barrels per day because of leaks due to theft, less than a week after it had been reopened. Oil theft is characterised by pipeline vandalism and oil spill. Repairing the vandalized pipelines and cleaning up spilled oil involves huge amount money which the oil companies spend as a result of the activities of the saboteurs. This constitutes huge revenue loss to these companies.

The money that could have been spent on other areas of oil exploration and production are (now) used for pipeline repair, maintenance and cleaning oil spills (Alawode & Ogunleye, 2013). Shell Petroleum Development Corporation (SPDC) has consistently declared force majeure on its operations, from 2009, 2010, 2011, 2012 and 2013. This was due to the activities of oil thieves who had damage its pipeline thus disrupting production. Nigeria Agip Oil Company (NAOC) in September 2013 declared a force majeure regarding crude oil lifting at the Brass Terminal and suspended its activities in Bayelsa State, following the intensification of illegal bunkering activities and the vandalisation of the 10-inch Kwale-Akri-Nembe-Brass oil delivery line. In April, 2013, Shell; shut-down the 150,000 barrels per day Nembe Creek oil pipeline due to the urgent need to clear away illegal connections Alohan (2013). Another explosion and fire at a crude theft point on Shell’s facility at Bodo
West in Ogoniland also forced the company to shut the Trans Niger Pipeline (TNP), in June 2013, deferring some 150,000 barrels of oil per day (bpd). Shell shut down again Trans Niger pipeline that produces 150,000 barrels per day on July 16, 2013 due to leakage from vandalism by oil theft. Shell shut down again the 150,000 barrels per day at the Trans Niger pipeline on 16th September, 2013 barely a week after it reopened the facility. Another shut-in occurred on Wednesday September 18, 2013 following reports of a leaking crude theft point at Bodo west in Ogoniland. Shell declared force majeure on Bonny light exports on October 10, 2013 due to increase crude oil theft resulting in 300,000 barrels shut in from two key pipelines- Trans Niger pipeline (TNP) at B-Dere, Nonwa-Tai and Bodo west (Olusola, 2013; Bello, 2013). The frequent illegal tapping of pipelines is often very crude and causes frequent pipeline leaks. This forces oil companies to shut down production while crucial repairs are conducted (Sun, 2013). A total of 189 crude theft points were repaired on the Trans Niger pipeline (TNP) and Nembe Creek Trunkline (NCTL) between January and September 2013 due to oil theft Bello (2013).

Thus, thousands of household and families of the Niger Delta have been impoverished, or have become securely locked into poverty as a result of this scale of environmental devastation (Gaskia, 2013).

**The Efforts of Nigerian Government to Curb Oil Theft**

The Federal Government of Nigeria has successively undertaken some policy measures aimed at curbing the incessant pipeline vandalism and oil theft among which is the establishment of a task force on national strategic infrastructure intended to monitor and respond to oil theft, the establishment of a special security outfit and militarization of the Niger Delta region, increased enforcement measures against the maritime trade in stolen oil which involved the Nigerian Navy being tasked with the responsibility for registration of vessels in Nigerian waters, closing markets for illegal oil, a hotline for reporting oil theft, introduction of the Nigerian Extractive Industries Transparency Initiative, enforcement and public education efforts against artisanal refining and granting of amnesty to Niger Delta militants. Illegal oil bunkering is not a new phenomenon in Nigeria. It has been perpetrated at different dimensions over the years both in the military era and the present civilian regimes. In his determination to fight the economic sabotage, Obasanjo who assumed office as a civilian head of state in 1999 took some steps to fight the oil thieves. A number of ships illegally used for trade in crude oil in Nigeria were confiscated with the culprits arrested. The Obasanjo’s administration also made attempts to close off the Ivory Coast refining of crude oil stolen from Nigeria, by putting in place a contract for supply of legal oil to the state owned refinery. It issued a warning to Cote d’Ivore in 2003 and offered the government contracts for the supply of legal oil to the state owned refinery.

Tomas (2010) notes that in its resolve to curb oil theft, the Nigerian government increased its military presence in the Niger Delta in 2003 which culminated in the deployment of a Joint Task Force (JTF) in 2008. The Joint Task Force comprises the Army, Navy, and paramilitary agencies. The JTF is mandated to curb and possibly put an end to illegal bunkering in the oil-rich Niger Delta region. Since its establishment, the Joint Task Force has on several occasions launched offensive operations on the oil thieves.

According to Ogodo (2012) The JTF has paraded several suspected oil thieves and operators of illegal refineries in the creeks of Niger Delta leading to the destruction or recovery of several barges, canoes, speed and large wooden boats. Regrettably, the JTF has not recorded the desired success in the fight against oil theft in Nigeria. The Nigerian government also warned governments known to receive stolen oil from Nigeria to stop accepting it. However, this measure could have been effective if it has been applied to other nations known to be receiving Nigerian stolen oil. Despite the efforts of Obasanjo’s regime to
curb oil theft in Nigeria, the menace continued to thrive through to President Yar Adua administration of 2007 to 2009. Also worried about the economic sabotage that has been the bane of the oil sector, the former late President, Umaru Musa Yar’ Adua initiated the Amnesty programme which was designed to have the Niger Delta militants surrender their arms and give up oil saboteur and militancy in the Niger Delta region. However, Yar ‘Adua died in 2009 and the mandate to pilot the affairs of the country rested on his deputy, Dr. Goodluck Ebele Jonathan. On his part, President Goodluck Jonathan was also resolute in ending the menace of pipeline vandalism and oil theft in Nigeria. To achieve this, he authorized the Nigeria Security and Civil Defence Corps (NSCDC) to carry arms and gave them extra responsibility of protecting oil pipelines across the country. He also sorted international collaboration in fighting oil theft in the country. In this regard, he reached out to some of his counterparts in various countries where government feels some of Nigeria’s crude is being refined in, and where these entities are laundering the funds made as a result of illegal bunkering (Nwanosike, 2013; Udo, 2013). According to Dodondawa (2014), President Goodluck Jonathan earlier in the 2014 approached the European Union and the, United States to support the fight against oil theft by not purchasing stolen crude oil from Nigeria.

Uwotu (2013) also notes that the Federal Government had also engaged the services of some ex-militant leaders in the Niger Delta to patrol the country’s vast coastline and protect her strategic oil installations but all these measures have not yielded a remarkable positive result. There are fears among stakeholders and security experts in the industry that crude oil theft in Nigeria may persist for long time to come due to level of sophistication the illicit trade has assumed in recent times and the calibre of persons involved in it even from within and outside the country.

Methodology

The study was conducted at Igbo Olomu, in Ikorodu, Lagos State Nigeria. Ikorodu is a city located North East of Lagos State Nigeria along the Lagos lagoon with a population of 535, 619 (National population Commission, 2006). Ikorodu is situated at a distance of approximately 36 km north of Lagos. The town is bounded on the South by the Lagoon. In the north, Ikorodu shares common boundary with Ogun State. While in the East, it has common boundary with Agbowa-Ikosi, a town in Epe Division of Lagos State. Igbo Olomu was purposively selected due to the recent degeneration of illegal oil bunkering into violent attacks on the community. The descriptive qualitative design was used to examine the plight of Igbo-Olomu residents who were violently attacked as a result of the menace of illegal oil bunkering in the community. The study population comprised residents of Igbo-Olomu community in Ikorodu, Lagos State. The sampling techniques adopted were purposive and snowball sampling techniques while data were collected using In-depth Interviews (IDI) and Key Informant Interviews (KII). A total of 50 in-depth interviews (IDI) were held with Igbo-Olomu residents while 10 key informant interviews were held with the landlords from the community. In all, a total of 60 residents were interviewed. The recorded interviews were transcribed to identify themes common in the narratives. The field notes were also organized according to the study objectives and questions. The data were then subjected to manual content analysis.

Discussion of findings

The attackers and the genesis of the crises

Findings revealed that the perpetrators of illegal oil bunkering in Igbo-Olomu and other neighbouring communities were militants from the Niger Delta region popularly known in the area as “Ijaw Boys” who had engaged in oil theft in the area for years. It would be
recalled that youths in the Niger Delta region had engaged in oil theft in that region on ground of alleged marginalization and underdevelopment of the Niger Delta region by the Federal Government and the Multinational Oil Companies (MNCs) operating in the region. The illegal bunkering activities in Ikorodu are therefore an extension of the illegal activity which started in the Niger Delta region. Though some youths from other parts of the country have allegedly joined the gang of oil thieves (locally known as oil bunkerers), virtually all the major actors involved in oil theft in Ikorodu are the militants popularly known in the area as Ijaw boys. Responding to the researcher’s question on whom the ‘illegal oil bunkerers’ are, a respondent explained thus:

*They are militants from Niger Delta, but here they are also known as the Ijaw boys”*. They have been operating here for a long time (Male resident/IDI/Igbo-Olomu).

Another resident of the area offered further explanation to the above assertion adding that, youths from other regions of the country who have no meaningful source of income have also joined the gang in order to meet their material needs. According to him, *Those guys are from different parts of this country. Initially, they were all from the Niger Delta, but now it is not so. You know that an idle mind is the devil’s workshop? So, other youths who have nothing doing for a living have joined them to make both ends meet. (Male resident/KII/Igbo-Olomu)*

Oil theft is not a new phenomenon in Ikorodu. However, the violent attack unleashed on the residents of the area is unprecedented. This therefore spurred enquiry into the root cause of the attacks by the restive youth on the community where they and the residents had coexisted for long. Findings of this study revealed that residents of Igbo-Olomu had over the years patronized the illegal oil bunkerers by massively consuming the petroleum products which they regularly siphon from oil pipelines. Not only were they consumers of the ‘product’, they also partnered with the ‘bunkerers’ in selling the siphoned petroleum products both within and outside Igbo-Olomu. Trouble was said to have started as a result of two of the militants who were reportedly shot by the law enforcement agents in an attempt to arrest them in the hotel where they usually lodged. The militants thereafter vented their anger on the landlords of the area whom they suspected were the ones that gave the law enforcement agents tip off on their whereabouts. Also angered by the sudden and unexpected action of the law enforcement agencies which led to the death of two of their members, the militants began to unleash violent attacks on the residents of the community on ground of perceived betrayal. Prior to the malicious attack, the residents of the community were said to have been patronizing the vandals who sale illegally siphoned petroleum products to their ‘marketers’ in the community who in turn sale to the final consumers both within and outside the community for domestic and commercial use. Due to the high cost of petroleum products at the filling stations, residents of the community widely patronize the vandals. One of the residents explained thus:

*This ugly incident never occurred since I started living in this place. They never attacked us. In fact, majority of the people in this area buy fuel from them. You know fuel is now too costly at the filling stations, so people would rather buy from them than pay higher at the filling stations. I learnt that two of their members were killed by the law enforcement agents and they are now on a revenge mission. They are attacking the community because they believe that the landlords reported them to the police. (Male resident/IDI/Igbo-Olomu)*

In the same vein, another resident said:
Before now, we have been living peacefully with them. This whole thing started when two of their members were shot by the law enforcement agents in an attempt to arrest them. They afterwards started killing people in this community because they thought that landlords were behind the attack on them (Male resident/KII/Igbo-Olomu).

Another resident confirmed the above narratives saying:

The cause of the crisis is the misunderstanding between them and the police. They are angry with the community, especially the landlords, thinking information about them was disclosed to the police by the landlords (Female resident/IDI/Igbo-Olomu).

**Violent attacks and internal displacement of residents**

Internal displacement refers to a situation whereby people flee their homes or places of residence for safety, by virtue of circumstances beyond their control. The United Nations Guiding Principles on IDP’s defines the IDP’s as persons or group of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human – made disasters, and who have not crossed an internationally recognized State border (UNHCR, Guiding Principles on Internal Displacement, 2005). The above definition connotes the involuntary movement of people who flee from places of violence but remain within their national borders. A number of factors account for the involuntary movement of people to other locations for safety purposes. These include armed conflict, insurgency, inter-communal clashes, violations of human rights, and natural or human-made disasters etc.

Igbo-Olomu was deserted as hundreds of residents were displaced from their homes following the violent attacks by the militants. Those who had no relatives in other parts of Lagos had to seek refuse in uncompleted buildings, schools churches etc. This is similar to internal displacement of people of Niger Delta region in 2009 by the militants prior to amnesty declaration for the militants by Alhaji Musa Yar’Adua in August, 2009, following the clashes between government forces and the militants, thousands of people fled their homes. The Joint Task Force (JTF), launched land and air strikes in Warri, Delta State, and later extended its offensive to neighbouring Rivers State (Reuters, 24 May 2009). The violence resulted in about 11,000 civilians uprooted from their homes, while several casualties were recorded (IRIN 2009). Those who fled their homes alive sought safety in schools, hospitals, and forests.

The internally displaced persons suffer a lot of negative impacts of being violently uprooted from their homes. The victims are rendered homeless which further render them prone to attack and abuse. Many displaced women fall victims of rape while others are forced into prostitution by lack of adequate shelter. By sleeping in open places, market stalls, and under the bridges at night, they easily fall prey to sexual abusers or they are forced to engage in transactional sex as a means of survival. Psychologically displacement subjects the victims, especially women and children to post traumatic disorder after being frightened by their experiences during violent conflict or war. Goldstein (2001) buttressed the psychological consequences of exposure of victims of violence-induced displacement to abuse and violence. The stated thus: following exposure to an extreme traumatic stressor involving direct personal experience of actual threatened death or serious injury, or other threat to one’s physical integrity, the common denominator of traumatic experiences is a feeling of intense fear, helplessness, and loss of control and threat of total destruction. He...
identified stressful traumatic experience to include rape, exposure to the dead and the wounded, which cause significant symptoms throughout their lifetime.

Violent conflict is followed by living in conditions of uncertainty, fear and anxiety which continue to negatively impact the displaced persons. This unpleasant experience is further exacerbated by the unfortunate killing of husbands and children which render the affected women widows and childless.

An internally displaced Igbo-Olomu resident stated that:

*My entire family has been forced out of our home by this violence. I thank God that we managed to escape alive because many people were killed. Their major targets were the landlords, but you know anybody could fall a victim in a crisis situation.* (Male resident/IDI/Igbo-Olomu)

A female respondent lamented that she has been uprooted from her source of income through which she fends for her children since her husband visits them from time to time. According to her:

*I don’t know how to feed my children now, since we fled Igbo-Olomu where my shop is located. It is from that shop I feed my children. Now I don’t know what to do.* (Female resident/IDI/Igbo-Olomu)

Another respondent who could not go home after closing from work due to the eruption of violence in the area stated thus:

*I was at work when my wife called me that I should not come back home after work. I asked her why? And she said that militants were killing people in Igbo-Olomu and that the community was almost deserted. At that time, she and our children were already out of Igbo-Olomu looking for where to stay. I have been wearing one trouser since then.* (Male resident/IDI/Igbo-Olomu)

A female respondent who was yet to recover from the psychological trauma narrated her experience thus:

*Since I fled from that community, I am yet to recover from the shock and fear the attack has caused me. I was taken unawares by the violence and my husband was not at home. As we were running away from the community, I saw people lying lifeless in the pool of their own blood. Since then, the bitter experience kept playing on my mind.* (Female resident/IDI/Igbo-Olomu)

**Loss of lives:** Findings of this study also revealed that many lives were lost as a result of the violent attack on the community. According to the residents who escaped the attack, most of the casualties were men living in the area, especially landlords. It was gathered that the killing was as a result of the killing of two of the militants by the law enforcement agents. Thereafter, the militants invaded the community on a revenge mission, accusing the landlords of the area of being responsible for the death of their gang members by allegedly reporting to the law enforcement agents. A respondent stated that:

*Many people have been killed by those boys. They are killing people living here to avenge the death of their gang members. They said landlords reported them to the police, and so the community will pay for the death of their colleagues.* (Male respondent/KII/Igbo-Olomu)
Kidnapping; rape and robbery: The aftermath of the crisis

Kidnapping is a social vice which has inflicted pains on many Nigerians and has also damaged the reputation of Nigeria in the international community. It refers to forceful abduction of a person to an unknown location for the purpose of demanding ransom, physical or sexual abuse, revenge or any other motive. After it was adopted by the youths of Niger Delta region to express their grievance over many years of neglect, marginalization and underdevelopment in the region, by abducting foreign oil workers, it has become a lucrative means of livelihood for jobless and impoverished youths, especially in the Southern Nigeria. Since then, the targets have been politicians, business moguls, academicians, children of rich parents, etc. By virtue of this menace, the tourist industry has been adversely affected as the fear of being kidnapped has prevented many foreigners from embarking on tourist visit to Nigeria. Furthermore, it also deters investors who would have come to invest in Nigeria.

The mayhem assumed a different dimension after the attackers were thought to have sheathed their swords and the subsequent return of the displaced persons. According respondents, when the terrible situation was thought to be over, kidnapping for ransom or rape and robbery erupted. Girls were kidnapped and raped while men and children were kidnapped for ransom. Also, there were rampant cases of robbery in the area, which were allegedly not perpetrated by the militants only, but also other hoodlums that took advantage of the situation to commit crime.

A resident narrated thus:

Other forms of evil started when we thought it was all over. They started kidnapping people and demanding ransom. Nobody goes out anymore once it is 7: pm for fear of being kidnapped. Once it is 6: pm, all those that own shops here luck up their shops and go home (Female resident/IDI/Igbo-Olomu)

Another resident added that robbery was on the increase, stressing that, other jobless youths has taken advantage of the crisis to rob shop owners and people going home late from work. According to him:

This community is in a serious trouble. Kidnapping has become the order of the day. Apart from that, people are being robbed every day, not just militants this time, but also bad boys who don’t have legal business or job to do. (Male resident/IDI/Igbo-Olomu)

Second displacement

As kidnapping and robbery were being perpetrated, residents of the community were for the second time massively uprooted from their homes following a threat of a second attack issued by the militants, who allegedly communicated different parts of the community, giving them different dates of imminent attacks. Before the given dates, residents within one part of the community were engulfed with fear following sounds of gunshots which lasted for hours in the mid-night. The respondents said no life was lost that night but various degrees of injuries were inflicted on men living in the area. The news spread like wildfire the following morning and before evening, Igbo-Olomu was for the second time deserted as the residents abandoned their homes and fled for safety. According to respondents, the second attack that led to second internal displacement of residents took place after the militants got a tip-off that the youth indigenes of the community (known as Omo-Onile) were planning join forces with the Odua People’s Congress (OPC) to expel them from the community.

A resident who fled the community said:

... they have forced us out of the community again. They threatened to attack us on the 17th of July, only for them to surface in the midnight before the date and started shooting and injuring...
people. So, everybody had to run away the following morning. As I speak to you now, my wife and children are on their way to the village because I don’t know where to take them to.

Since I can’t leave my work and go with them, I will be sleeping in my friends’ place. (Male resident/IDI/Igbo-Olomu)

Another resident who spoke outside the community bemoaned living as a homeless after spending huge amount of money to purchase land and build a house. She stated thus:

... I don’t know the crime we have committed to deserve this wickedness. How can we be suffering like this, looking for where to sleep after toiling to buy land and build house? Many people are stranded now, not knowing where to go to. And the worst part of it is that the police are not doing anything about it (Female resident/IDI/Igbo-Olomu).

The inadequacy of police intervention

It is the duty of the police to protect lives and property. Unfortunately, many have argued that police are not living up to their responsibility. Findings revealed that the police officers that were deployed to the area to maintain law and order were stationed on the road leading to Igbo-Olomu. Consequently, people were being attacked in different parts of the community without police intervention. According to respondents, the police that were deployed to quell the violence turned down the request of the residents that they should send their men into the streets to prevent the attacks going on, on the streets. The police were said to have rejected this plea, insisting that they were not asked to go into the streets but to guard the road leading to the community. The resultant consequence of this was that people were attacked in their houses without the police going to rescue them.

A respondent explained thus:

What we need in Igbo-Olomu are soldiers. The police are not doing anything. They stationed themselves on the road while people were being attacked in their homes. If you call them, they tell you they were not asked to go to the streets. (Female resident/IDI/Igbo-Olomu)

Another respondent spoke further, doubting the capacity of the police to confront the criminals. He was of the opinion that police deliberately refused to go into the streets for fear of being overpowered by the criminals. He stated as follows

Forget police. They cannot stand those guys. That is why they refused to go into the streets to confront the criminals. (Male resident/IDI/Igbo-Olomu)

Conclusion

The study examined the plight of Igbo-Olomu residents who were attacked by the restive youths involved in oil theft in that community. Findings revealed that violent attacks on Igbo-Olomu community was perpetrated by jobless youths from the Niger Delta region and other parts of the country who have been involved in oil theft in that community and the neighbouring communities. Stolen petroleum products purchased from the militants were massively sold and consumed by Igbo-Olomu residents prior to the attack. The violent attack by militants on their Igbo-Olomu ‘customers’ started after the police attacked the militants, who subsequently embarked on revenge attacks on the residents on the ground that the landlords in Igbo-Olomu disclosed information about them to the police.
As a result of the attacks, many lives were lost; hundreds of residents were internally displaced from their homes, while several people sustained various degrees of injury. The mayhem later degenerated into kidnapping for ransom and rape, and robbery. By virtue of the second phase of attacks on the community, the residents were for the second time uprooted from their homes. The intervention of the police could not quell the violence as they stationed on the road leading to the community while residents were being kidnapped, robbed and attacked in the community.

Recommendations

- It is hazardous if majority of the youths of a country are jobless and poor. Since the major cause of youth restiveness in Nigeria is joblessness and the attendant poverty, the government should live up to its responsibility by creating jobs and creating enabling environment for people to meet their material needs. Law abiding youths tend to seek criminal alternative if legal means for them to meet their needs are not available
- Communities should take urgent steps to uproot known criminal gangs from the inception before they grows into intractable formidable forces. Residents of communities should desist from aiding and abetting criminal activities because it is tantamount to inviting catastrophe. Findings revealed Igbo-Olomu residents had aided and abetted illegal oil bunkering buy engaging in clandestine marketing and consumption of the stolen product.
- Fighting oil theft without making petroleum products affordable and available to the consumers would be counterproductive. Petroleum products should therefore be made affordable and available to the consumers in order to discourage them from patronizing illegally siphoned oil.
- Community policing should be introduced and adequately implemented in all the communities.
- Orientation programmes should be organized to educate the people on the need to report criminal activities to the appropriate authorities.
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EXAMINING FINANCIAL INTERMEDIATION IN NIGERIA: THE PERFORMANCE OF BANKS

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Abstract

The importance of banks in generating growth within an economy has been widely acknowledged. Investors in the banking industry, always look forward to earning good returns on their investments. Therefore, in this connection, the decision to invest in a particular bank is guided by perceptions and fore knowledge about indicators of performance such as profitability. In view of the role that the banking industry plays in the economy, the regulatory authorities, policy makers, banks’ management, investors and other stakeholders cannot be less interested in the growth and performance statistics of the industry. There is, therefore, a need to have a comprehensive study on the performance of the banking industry, using the framework of financial ratio analysis (FRA). This study, therefore, is carried out to present a highlight of the performance of Nigerian deposit money banks in their traditional role of financial intermediation for the period 1990 to 2010. The study used secondary data (annual averages of FRA of banks) from Central Bank of Nigeria (CBN). The annual averages of FRA of banks were compared with industry-wide based FRA in order to draw conclusion. The study found out that the dynamics of FRA indicated that banks were generally efficient but that the earning power of assets in the banking industry has been declining. Based on the results of the performance indicators, using ratios, the study conclude that FRA can to some extent show some trends in the banking industry. It is suggested that banks should focus more on efficiency in the deployment of assets and increase the productivity of both human and material resources.

Keywords: Financial intermediation, banks, banking industry, financial ratio, financial ratio analysis

1. Introduction

Previous studies have confirmed that bank level factors, macroeconomic factors, and monetary policy are important in determining bank performance. Investors in the banking industry, always look forward to earning good returns on their investments. Therefore, in this connection, the decision to invest in a particular bank is guided by perceptions and fore knowledge about indicators of performance such as profitability. The measurement of such indicators falls in the realm of financial statement analysis, which traditionally, is concerned with the analysis of relationships within a set of financial information at a point in time and with trends in these relationships over time (Foster, 1978 in CBN, 2013). There is, therefore,
the need for an assessment of operational performance of banks in Nigeria in order to
determine and highlight performance metrics especially as it relates to their traditional role of
financial intermediation.

Hashim (2012) assert that the importance of banks in generating growth within an
economy has been widely acknowledged, for example Schumpeter (1911) identified bank’s role in facilitating technological innovation through their intermediary role. Schumpeter believed that efficient allocation of savings through identification and funding of entrepreneurs with the best chances of successfully implementing innovative products and production processes are tools to achieve real growth. The process that facilitates the transferring of the savings of some economic units to others for consumption or investment at a price is generally referred to as financial intermediation (Hashim, 2012). Financial intermediation is an important activity in the economy because it allows funds to be channeled from people who might otherwise not put them to productive use to people who will ultimately put the funds to productive uses, for as maintained by Azege (2004), financial intermediation helps promote a more efficient and dynamic economy.

The Central Bank of Nigeria (CBN) assert that the trend of bank profits in Nigeria since the liberalization of the financial sector in the Structural Adjustment Programme (SAP) era led to the thinking in many circles that investment was most worthwhile in the banking industry. The increase in the number of new entrants to the industry in the late 1980s and 1990s lent credence to this view. However, there are no available statistics either for inter-temporal or group comparisons within the banking industry and much more so for comparison between returns on investment in the banking and the other industries (CBN, 2013). Some past attempts to assess the performance of the Nigerian banking industry either had the mark of incomplete coverage or were limited in scope in terms of the number of metrics used. Moreover, there is no study that used the actual balance sheet and income statements (audited accounts) data; the micro data (CBN, 2013).

In recent times, margin measurement and other ratio analysis have become very
important tools to banks’ management, regulatory authorities and the general public. In view
of the role that the banking industry plays in the economy, the regulatory authorities, policy
makers, banks’ management, investors and other stakeholders cannot be less interested in the
growth and performance statistics of the industry. There is, therefore, a need to have a comprehensive study on the performance of the banking industry, using the framework of financial ratio analysis (FRA). For example; according to CBN (2004), Nigerian banks are now key players in the global financial market with many of them falling within the Top 20 banks in Africa and among Top 1000 Banks in the world.

This study, therefore, is carried out to present a highlight of the performance of Nigerian deposit money banks in their traditional role of financial intermediation for the period 1990 to 2010, within the framework of FRA. The study is presented in five sections. Following the introduction, section two is the review of conceptual and empirical literature. In section three, the methodology for this study is provided. Section four presents the results and findings, and section five provides conclusions and recommendations.

2.0 REVIEW OF LITERATURE

2.1 Theoretical and Conceptual Literature

Babalola (1989) noted that profitability and asset base are the two traditional measures of bank performance in Nigeria. While profitability pleases shareholders, asset base pleases the board of directors. He further stated that, quantity as well as quality of service rendered by banks could also be used to assess the performance of banks. Various factors which affect performance indices include monetary policy measures, rates of interest,
exchange rate, provisioning for bad and doubtful loans, prudential requirements, liquidity ratio and open market operations. The two traditional profitability measures are return on assets (ROA) and return on capital employed (ROCE). However, these measures, alone, are no longer adequate in measuring bank profitability performance assessment since they do not satisfactorily meet the needs of stakeholders other than the shareholders (CBN, 2013).

Of increasing importance in the assessment of bank profitability performance is margin analysis. While the net interest margin measures the profitability of employment of interest bearing assets and liabilities, the net non-interest margin specifically measures the profitability of pricing and marketing decisions (Lynn, 1989 in CBN, 2013). Bank Managements and owners of capital are not the only parties interested in the performance of banks. Regulatory authorities are also interested in so far as they have the statutory responsibility for protecting depositors against losses that may result from possible mismanagement or bank runs.

Meanwhile, a current controversy has been raging between bank managements and the regulatory authorities over bank capital. While bank Managements would want to reduce capital ratios to please the owners of banks, the regulatory authorities, concerned with the stability and soundness of the system would want relatively high capital ratios as cushion against unexpected and other contingent liabilities (CBN, 2013). Also controversial is the issue of who specifies the level of capital (Oraler and Wolkowite, 1976). In this connection, while bank Managements argue that the market should be allowed to set the level, the regulatory authorities insist that they have that responsibility.

Quantitative measurement of bank performance usually focuses on net income, capital and liquid assets, among others, depending on the purpose of such an exercise. However, measuring the absolute quantities of balance sheet or income variables in themselves is not very meaningful unless such measurements relate to other balance sheet items, such as bank portfolios. Absolute measurement is also associated with scale problem resulting from size. For example, large banks with large absolute values of such variables may, in fact, not be operating efficiently or profitably, or may even be undercapitalized; hence bank performance measures are usually stated as ratios. The basis for the judgment of the adequacy of these ratios is the comparison with the industry-wide averages. These averages are not regarded as optimal, maxima or minima but as a guide and, may in fact, be an oversimplification of performance in the light of the factors that affect the operations of banks and their environment (CBN, 2013).

The use of financial ratios does not have any firm financial theory backing it. What theory does is tell the narrative. Although a financial ratio does not have a maximum, minimum or an optimum value, ratio analysis is useful for providing insight to a firm's strengths and weaknesses. Financial ratios are standard ways of comparing business outcomes in, for example, banks and the banking industry. The use of ratios scales all firms to the same level for easy analysis, such that banks, for example, are assessed on profitability rather than on the size of their assets or deposits. Thus, a ratio such as ROA may show that the smaller of two banks may be operating at a higher level of efficiency than the bigger bank. However, it is not appropriate or valid to reach conclusion on the condition of a firm based on just one ratio (CBN, 2013).

Financial ratio analysis can be used in two different ways. First, FRA provides the platform to examine the performance of a firm relative to those of the others i.e the competitors. Second, it can be used to compare the performance of a firm and others across time periods. In the context of the above and other uses, FRA can be deployed to: evaluate performance (compared to previous years & peers); set benchmarks or standards for performance; highlight areas needing improvement or offering the most promising future
and enable external parties for example, investors/lenders to assess profitability performance (CBN, 2013).

Theoretically, according to the traditional theory of resource allocation, the Arrow-Debreu model held that economic agents interact through markets and there is no role for financial intermediaries and hence intermediation. However, a number of theories have argued against this traditional dogma to explain the role of financial intermediation such as the theories of asymmetric information (imperfect information) and agency, all of which lead to market imperfections and thus transactions costs. The rationale for the existence of intermediaries such as banks is that they can reduce information and transactions costs that arise from information asymmetry between lenders and borrowers. The modern theory of financial intermediation is hinged on two arguments namely; intermediaries’ (for example; banks) ability to provide liquidity and their ability to transform the risk characteristics of assets (Hashim, 2012).

Financial statement analysis has a fairly long history dating back to the close of the previous century (Horrigan, 1968). There are several themes of FRA in the financial literature among which the major three include; the functional form of the financial ratios, i.e. the proportionality discussion, distributional characteristics of financial ratios and, classification of financial ratios. Theoretical approaches have also been developed, but not always in close interaction with the empirical research.

The basic assumption in FRA framework is that firms in an industry are of different sizes in many respects. This is true even at variable level. Thus, traditionally, the basis for using financial data in the ratio form is to be able to make inter-firm and inter-temporal comparability by controlling for size. The usually stated requirement in controlling for size is that the numerator and the denominator of a financial ratio are proportional (Salmi and Martikainen, 1994).

Technically, a financial ratio is of the form

\[ R = \frac{X}{Y}; \] \hspace{1cm} \text{(1)}

Where, R is ratio and, X and Y are variables (numbers) which are derived from financial statements or other sources of financial information.

Financial ratios are classified on the basis of source of the Xs and Ys (Salmi and Martikainen, 1994). In FRA generally, the Xs and the Ys are sourced from financial statements. If either X or Y or both are sourced from income statement, the ratio is said to be dynamic while it is said to be static if both come from the balance sheet. This is because balance sheet numbers are stock (snapshot at a point in time).

The FRA methodology in bank performance analysis features widely in the literature on the subject. The use of FRA is important because comparing performance of banks, using absolute numbers, is not very meaningful. This is because: banks operate in different environments; are of different sizes; and have unique characteristics which make the use of absolute numbers irrelevant. Thus, FRA provides a standardized approach that removes the effects of the above-named institutional differences while providing a good basis for comparing the ratios obtained from such an exercise since all institutions are placed on the same level playing field.

2.2 Determinants of Bank Performance

According to Suffin (2010) in CBN (2013), the literature recognizes that both returns on equity and assets are sensitive to internal conditions of banks as well as external factors. Internal determinants involved actions of management that are aimed to grow banks assets in a competitive environment and to minimize cost, including decisions on liquidity ratios, credit and investments, provisioning, capital adequacy, expenses management, banks size and
leveraging. External determinants on the other hand reflect external economic and legal conditions under which the banks and indeed the entire financial system operate. While the risks of banking are affected by the macroeconomic environment, changes in banking legislations are particularly important in shaping bank behavior, capacity and growth.

2.2.1. Internal Determinants

A major source of volatility in bank profit in Nigeria, as in most sub-Saharan countries, is credit risk, defined as the risk of default on loans. Credit risk is measured by bad loans and provision for bad loans. Provisioning is a major item in banks’ balance sheet under condition of economic uncertainty. Large provisioning for bad debts indicates the riskiness of the credit market, which has the tendency to reduce net profit. However, to the extent that credit risk provides a forward-looking measure of bank exposure to default and asset quality deterioration, it could be modeled as a predetermined variable in which case, a positive association of profits and credit risk would be expected (CBN, 2013).

Banks that have a large share of the market are expected to be more profitable through scale economies. Such banks can influence pricing activities in the market to their advantage; they can attract deposits at lower cost than marginal players and are better placed to reduce their operating costs. The size variable, represented by the average total assets of banks and the concentration ratio (CR) are also expected to positively influence the performance of banks (CBN, 2013). However, the size of a bank may not necessarily mean it is efficient, and efficiency in the delivery of financial services is necessary for sustaining profit.

Interest income remains a major source of earnings for banks and thus a factor of profitability while interest expense works in the opposite way. Thus, the net interest margin, NIM (size of interest income divided by average total assets) is expected to impact banks performance positively. Also, non-interest income is a major source of revenue for banks and reflects the advantage of income diversification (CBN, 2013).

Accordingly, the higher the proportion of non-interest income to gross earnings, the more diversified bank services are and the larger would be the expected size of profit. The shift towards noninterest income is justified on the need to reduce volatility in earnings since non-interest income may be less dependent on overall business conditions than traditional interest income would. In Nigeria, income from bank charges has become a major source of revenue for banks, especially following the increased credit risk aversion that has characterized the post 2007-2008 financial crisis (CBN, 2013).

Overhead expenditure does not only reflect the possible effects of cost on bank profitability, but also constitutes a good measure of managerial efficiency. In Nigeria, where overheads are an important element of banks’ cost of funds, it is to be expected that large overhead costs would reduce bank earnings. Indeed, higher total expenditure would have the effect of reducing bank profits. Other internal factors affecting banks’ performance included decisions on liquidity ratios, loans, deposit mobilization and capital adequacy ratios among others (CBN, 2013).

2.2.2 External Determinants

External influences on bank performance encompass macroeconomic conditions, economic policies as well as the laws and regulations guiding the operation of banks. Demand for credit increases with economic growth prospects, and banks would be more inclined to purchase financial assets when economic conditions improve and vice versa. The effects of inflation on bank profitability depends on whether future movements in inflation are fully anticipated by banks in their credit decisions. Where the price inflation rate is fully anticipated, banks easily increase profits by appropriately adjusting the size of risk premium
in interest rates in order to shield their returns from the effects of inflation. An unexpected change could raise costs owing to imperfect interest rate adjustment; banks may be adjusting to inflation pressures with a lag as found in Enendu (2003).

Thus, the effect of inflation on bank performance could be positive or negative. Monetary policy was captured by the reserve requirements and the monetary policy rate. As is common, required reserves constrain banks’ ability to lend and make profit whereas the central bank’s policy interest rate is expected to affect banks profitability through its effects on credit growth overall the stance of policy on the performance of banks was represented by the monetary policy rate with a negative expected relationship with bank's performance (CBN, 2013).

Finally, banking reforms were to facilitate bank growth and reposition them for effective performance. For example; between 1990 and 2010, Nigerian banking system witnessed major reforms, the most notable being the bank consolidation exercise of 2004. The reform specified a new capital structure that led to a drastic reduction in the number of banks from 89 to 25 relatively well capitalized banks by end-2005. The banks were expected to be able to undertake large ticket lending and increase profits.

### 2.3 Review of Empirical Studies

Most of the works on bank profitability measurement have been in the area of effects of policy on commercial bank performance. These works looked at the effects through estimation of models and functional forms of relationships which could be used to forecast future profitability. For example; Abdus (2004) examined the performance of Bahrain’s commercial banks with respect to credit (loan), liquidity and profitability during the period 1994-2001 conducted in Bahrain’s. Nine financial ratios (Return on Asset, Return on Equity, Cost to Revenue, Net Loans to Total Asset, Net Loans to Deposit, Liquid Asset to Deposit, Equity to Asset, Equity to Loan and Nonperforming loans to Gross Loan) were selected for measuring credit, liquidity and profitability performances. Finally the study found that Commercial banks are relatively less profitable and less liquid and, are exposed to risk as compared to banking industry.

In recent research efforts by Goddard, Molyneux, and Wilson (2004), the profitability determinants in six European banking sectors (Denmark, France, Germany, Italy, Spain and the UK) were conducted for the period 1992–1998. Their results suggest that despite intensifying competition it was possible to detect significant persistence of abnormal bank profits from year to year. Apart from that they discovered a positive relationship between the ROA and profitability and at same time ROE and profitability. Therefore, both the ROA and ROE are used for vital indicator for profitability performance of banking industry.

Tarawneh (2006) conducted a study on commercial banks of Oman to know the performance of the bank. The study classify the commercial banks in Oman in cohesive categories on the basis of their financial characteristics revealed by the financial ratios (Return on Asset, Return on Equity and Return on Deposit). A total of five Omani commercial banks with more than 260 branches were financially analyzed, and simple regression was used to estimate the impact of asset management, operational efficiency, and bank size on the financial performance of these banks. The study found that the bank with higher total capital, deposits, credits, or total assets does not always mean that it has better profitability performance.

Bateswar and Ajay (2007) made a review of the performance of banking sector in India during post reform period. A comparative appraisal of banks have been undertaken on the basis of seven indicators of performance namely, Net profit , Credit to deposit ratio, Market Share, Business per Employee, Return on Assets, Capital Adequacy Ratio and Non
performing Asset to Net Advances. The study reveals that public sector banks have improved considerably and their performance was comparable with other banks.

Felix and Claudine (2008) investigated the relationship between bank performance and credit risk management. They inferred from their findings “that return on equity (ROE) and return on assets (ROA), both measuring profitability, were inversely related to the ratio of non-performing loans to total loans of financial institutions, thereby leading to a decline in profitability”. Similarly, in his assessment of the effect of credit management on the profitability of banking industry in Kenya, Kithinji (2010) used data on the amount of credit, level of non-performing loans and bank profits for the period, 2004 to 2008. The findings revealed that “the bulk of the profits of commercial banks were not influenced by the amount of credit and nonperforming loans, implying that other variables other than credit and nonperforming loans impact profits”.

In addition, Kumbirai and Webb (2010) examined the performance of South Africa’s commercial banking sector for the period 2005-2009. Financial ratios were employed to measure the profitability, liquidity and credit quality performance of five large South African commercial banks. The study found that overall bank performance in terms of profitability, liquidity, and credit quality had been improving since 2005 up to and including 2007. Banks increased the size of their loan portfolios concomitantly while sound and effective credit risk management policies were in place, such that the lending behaviour could be checked, resulting in the downward trend in nonperforming loans. However, bank performance deteriorated during 2008-2009 as the banks’ operating environment worsened, owing to the global financial crisis and a slowing economy. The analysis also revealed that the illiquidity of the South African commercial banks had reached extreme levels.

Kumbirai and Webb (2010) investigates the performance of South Africa’s commercial banking sector for the period 2005-2009. Financial ratios are employed to measure the profitability, liquidity and credit quality performance of five large South African based commercial banks. The study found that overall bank performance increased considerably in the first two years of the analysis. A significant change in trend is noticed at the onset of the global financial crisis in 2007, reaching its peak during 2008-2009. This resulted in falling profitability, low liquidity and deteriorating credit quality in the South African Banking sector.

An evaluation of the impact of credit risk on the profitability of Nigerian banks was undertaken by Kargi (2011). He used a sample data collected from the annual reports and accounts of banks from 2004-2008 and employed descriptive, correlation and regression techniques coupled with the use of financial ratios and credit risk profile as measures of evaluating bank performance. The results of the findings suggested that credit risk management impacted significantly on the profitability of Nigerian banks.

Joshua (2011) used gross earnings, profit after tax and net assets of the selected banks as indices to determine financial efficiency by comparing the pre-merger and acquisition indices with the post-merger and acquisition indices for the period under review. Three Nigerian banks were selected, using convenience and judgmental sample selection methods. Applying t-test statistic, the study found that the post-merger and acquisition period was more financially efficient than the pre-merger and acquisition period. However, to increase bank financial efficiency, the study recommended that banks should be more aggressive in their profit drive for improved financial position to reap the benefit of post-merger and acquisition initiatives.

In his assessment of the impact of bank-specific risk characteristics, and the overall banking environment on the performance of 43 commercial banks operating in 6 of the Gulf Cooperation Council (GCC) countries over the period 1998-2008, Al-Khouri (2011), using fixed effect regression analysis, showed that credit risk, liquidity risk and capital risk were
the major factors that affected bank performance when profitability was measured by ROA, while the only risk that affected profitability when measured by ROE was liquidity risk”.

Kolapo and Ayeni (2012) carried out an empirical investigation into the quantitative effect of credit risk on the performance of commercial banks in Nigeria over the period of 11 years (2000-2010). Five commercial banking firms were selected on a cross sectional basis for eleven years. The traditional profit theory was employed to formulate profit, measured by ROA, as a function of the ratio of Non-Performing Loan to Loans and Advances, ratio of Total Loans & Advances to Total Deposits, and the ratio of loan loss provision to classified loans as measures of credit risk. Panel data analysis was used to estimate the determinants of the profit function.

The results reported by Kolapo and Ayeni (2012) showed that the effect of credit risk on bank performance measured by the ROA of banks was cross-sectional invariant. In other words, the effect is similar across banks in Nigeria, though the degree to which individual banks are affected is not captured by the method of analysis employed in the study. A 100 percent increase in nonperforming loans reduces profitability ROA by about 6.2 percent; a 100 percent increase in loan loss provisions also reduces profitability by about 0.65 percent while a 100 percent increase in total loans and advances increases profitability by about 9.6 percent. Based on their findings, they recommended that banks in Nigeria should enhance their capacity in credit analysis and loan administration while the regulatory authorities should pay more attention to banks’ compliance with the relevant provisions of the Bank and other Financial Institutions Act (1999) and the Prudential Guidelines.

Epure and Lafuente (2012) in their own work examined bank performance of the Costa-Rican banking industry that was faced with risk during 1998-2007. The results of the study showed that performance improvements tracked regulatory changes and that to a large extent risk explained differences in banks. Furthermore, non-performing loans negatively affected efficiency and ROA.

Chen and Pan (2012) examined the credit risk efficiency of 34 Taiwanese commercial banks over a three-year period using financial ratios to assess the credit risk which was analyzed using Data Envelopment Analysis (DEA). Three credit risk parameters (credit risk technical efficiency, credit risk allocation efficiency, and credit risk cost efficiency) were examined. The results indicated that “only one bank was efficient in all types of efficiencies over the evaluated periods. And overall, the DEA results showed relatively low average efficiency levels in credit risk technical efficiency, credit risk allocation efficiency, and credit risk cost efficiency in 2008.

Okafor (2012) evaluated the performance of Nigerian banks before and after the 2005 consolidation exercise. Capital adequacy, asset quality, liquidity and management efficiency were used to analyze the banks’ performance. The period 2004-2005 was designated the pre-consolidation era, while 2006-2009 was deemed the post-consolidation period. Using t-statistics, the result showed that consolidation improved the performance of the Nigerian banking industry in terms of asset size, deposit base and capital adequacy. However, the profit efficiency and asset utilization ratios of the banks had deteriorated since the conclusion of the consolidation programme.

3.0 Data and Methodology

3.1 Data

The data for this study were secondary data obtained from published CBN occasional papers (2013). The data covered the period 1990-2010.
3.2 Methodology

To examine the performance of the banks in Nigeria, FRA is used. In order to make deductions on the outcomes of the FRA, the annual averages of FRA of banks were compared with industry-wide based FRA. The industry averages and banks’ annual averages were sourced from CBN occasional papers 2013. In order to examine the contribution of banking sector to financial intermediation, multiple regression analysis was carried out.
Table 3.1  List of financial ratios used

<table>
<thead>
<tr>
<th>S/no.</th>
<th>Ratio</th>
<th>Definition</th>
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<tbody>
<tr>
<td>1.</td>
<td>Return on Assets (ROA)</td>
<td>Ratio of Profit After Tax (PAT) / Average Total Assets</td>
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<td>2.</td>
<td>Net Interest Margin (NIM)</td>
<td>Net Interest Income / Average Total Assets</td>
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<tr>
<td>3.</td>
<td>Earning Power Ratio (EPR)</td>
<td>Gross Income / Average Total Assets</td>
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<td>4.</td>
<td>Intermediation Cost Ratio (ICR)</td>
<td>Operating Cost / Total Assets</td>
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<td>5.</td>
<td>Cost to Income Ratio (CIR)</td>
<td>Total Costs / Gross Income</td>
</tr>
<tr>
<td>6.</td>
<td>Efficiency Ratio (ER)</td>
<td>Non-Interest Expenses / Gross Income</td>
</tr>
<tr>
<td>7.</td>
<td>Profit Expense Ratio (PER)</td>
<td>Profit Before Tax / Total Expenses</td>
</tr>
<tr>
<td>8.</td>
<td>Average Income Generated per Employee (AIGE)</td>
<td>Gross Income / No. of Employees</td>
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<tr>
<td>9.</td>
<td>Average Business Generated per Employee (ABGE)</td>
<td>(Total Deposits + Gross Loans &amp; Advances) / No. of Employees</td>
</tr>
<tr>
<td>10.</td>
<td>ROCE</td>
<td>Profit After Tax / Capital Employed</td>
</tr>
</tbody>
</table>

Adapted from CBN 2013

4.0 Results and Discussion

Analysis in this section was done based on average data sourced from the Central Bank of Nigeria and not bank level data. The data hereby presented in Tables below and a discussion of the data in FRA form is provided under relevant and appropriate headings. To examine the performance of the banks, average FRA of banks were compared with industry average in each case.

Table 4.4: Annual Avarage Ratios of Banks in Nigeria 1990-2010

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<tbody>
<tr>
<td>ROA</td>
<td>Ind.</td>
<td>0.1</td>
<td>0.6</td>
<td>1.7</td>
<td>3.1</td>
<td>1.8</td>
<td>2.0</td>
<td>1.6</td>
<td>2.0</td>
<td>2.4</td>
<td>0.6</td>
<td>3.2</td>
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<tr>
<td></td>
<td>DMBs</td>
<td>2.6</td>
<td>2.19</td>
<td>4.25</td>
<td>7.35</td>
<td>4.85</td>
<td>5.90</td>
<td>4.34</td>
<td>5.17</td>
<td>5.76</td>
<td>5.88</td>
<td>5.38</td>
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<td>2001</td>
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<tr>
<td>ROA</td>
<td>Ind.</td>
<td>2.9</td>
<td>2.5</td>
<td>6.7</td>
<td>1.9</td>
<td>2.5</td>
<td>2.1</td>
<td>2.2</td>
<td>0.2</td>
<td>2.8</td>
<td>1.4</td>
<td></td>
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<tr>
<td></td>
<td>DMBs</td>
<td>6.82</td>
<td>6.79</td>
<td>5.04</td>
<td>4.59</td>
<td>4.15</td>
<td>4.05</td>
<td>2.78</td>
<td>-1.71</td>
<td>-5.17</td>
<td>2.36</td>
<td></td>
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<tr>
<td>NIM</td>
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<td>8.81</td>
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<td>DMBs</td>
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<td>3.77</td>
<td>5.81</td>
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<td>DMBs</td>
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<td>9.06</td>
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<td>5.74</td>
<td>7.18</td>
<td>7.13</td>
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Table 4.5: Annual Average Ratios of Banks in Nigeria 1990-2010

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<td>30.04</td>
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<td>AIGE (₦)</td>
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<td>126.62</td>
<td>281.0</td>
<td>328.98</td>
<td>391.54</td>
<td>644.29</td>
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<td>672.76</td>
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<td>140.448</td>
<td>208.94</td>
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<td>AIGE (₦)</td>
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<td>25493.21</td>
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4.1 Financial Ratio Analysis

4.1.1 Return on Assets (ROA)

Return on assets is a standard measure of bank performance. The numerator can be either before - or after-tax profits. It gives management and shareholders a sense of how well the available resources are being employed (CBN, 2013). From Table 4.4 this ratio ranged from 0.1 to 3.2 per cent between 1990 and 2000, with an 11-year average ratio of 1.7 per cent for the banking industry. The deposit money banks (DMBs) had the highest ratio both in range and period average. The ratio ranged from 2.2 to 7.4 per cent and averaged 4.9 per cent for the 11-year period. In the 5-year period (2001-2005) pre-consolidation, the ROA was higher than in the preceding 11-year period. It ranged from 1.9 to 6.7 per cent, with an average of 5.5 per cent. In the post-consolidation period, 2006 to 2010, performance of banks in terms of profitability was generally lower than in the pre-consolidation period. The ROA ranged from 1.4 to 2.8 per cent; -0.4 to 2.9 per cent and; -5.2 to 4.1 per cent for the industry. The respective 5-year averages were 1.7; 1.7 and 0.5 per cent. The lower performance in profitability in the post-consolidation period was, might obviously, generally due to the impact of the global financial crisis in the period, 2007 to 2009, as well as the regulatory actions requiring banks to provide for non-performing loans in their portfolio.

DMBs performance was higher than those of the industry with the 5-year average of 5.5 per cent. In the post-consolidation period, 2006 to 2010, performance of banks in terms of profitability was generally lower than in the pre-consolidation period. The ROA ranged from 1.4 to 2.8 per cent; -0.4 to 2.9 per cent and; -5.2 to 4.1 per cent for the industry. The respective 5-year averages were 1.7; 1.7 and 0.5 per cent. The lower performance in profitability in the post-consolidation period was, might obviously, generally due to the impact of the global financial crisis in the period, 2007 to 2009, as well as the regulatory actions requiring banks to provide for non-performing loans in their portfolio.

4.1.2 Net Interest Margin (NIM)

This measure indicates how well interest-bearing assets are being employed relative to interest bearing liabilities. In other words, it is the difference between what a bank receives and what it pays out as interests divided by interest earning assets. Although banks and regulatory authorities are concerned about this measure, they should also monitor its variability over time. The stability of this measure, in an otherwise volatile interest rate regime, shows that interest sensitivity of assets and liabilities is matched (CBN, 2013). The 11-year (1990-2000) average NIM for the DMBs were better than the industry average. NIM
was 11.3 per cent for the banks, while the industry average was 7.6 per cent. The 5-year average NIM for the universal banking era (2001-2005) was 11.3 per cent.

4.1.3 **Earning Power Ratio (EPR)**

This ratio measures the income earned per naira asset employed in business by a bank. This is akin to the productivity of a naira asset employed in the business. The average EPR showed a downward trend in the period covered by the analysis. The average income per naira asset in the 11-year period preceding the universal banking (UB) regime was higher than in the 5-year periods pre- and post the 2005 consolidation. According to CBN (2013), the observed downward trend in EPR was due to the introduction of the UB in 2001 which increased competition in the industry. In general it can be deduced that the earning power of assets in the industry has been declining since 2000.

4.1.4 **Intermediation Cost Ratio (ICR)**

The intermediation cost to total asset ratio (ICR) is an efficiency metric which expresses the operating cost as a proportion of the assets employed and maintained by a bank. Lower ratios imply lower operating costs and indicate a more efficient process of intermediation (CBN, 2013). The ICR showed a gradual decline from the pre-UB period to the post-consolidation period. Analysis of the dynamics of the ratio indicated that banks were generally efficient, as the average ratio was under 15.0 per cent for the banks, during the period covered by the study.

4.1.5 **Cost to Income Ratio (CIR)**

This ratio measures how much a bank pays out to earn a naira income. A lower ratio is obviously more desirable for a bank as it indicates that incomes are higher compared to expenses. A higher number should be a matter of concern to the Management (CBN, 2013). The CIR remained relatively high and almost flat throughout the period covered by the study. The 11-year (1990-2000) period average prior to the UB era stood at 80.3 and 67.3 per cent for the industry and the banks, respectively.

4.1.6 **Efficiency Ratio(ER)**

This ratio is obtained by dividing non-interest expenses by the sum of net interest income and non-interest income. It is a productivity measure that shows how much a bank spends out of every naira it earns and how much it keeps. The benchmark for this ratio is generally less than or equal to 40 per cent for a very efficient bank and equal to or greater than 75 per cent for a very inefficient bank (CBN, 2013). The efficiency ratios of banks were relatively high for the industry and the other DMBs during the period covered by the study. In the post-consolidation period, 2006-2010, the 5-year average ER for the industry and the DMBs stood at 69.4, and 69.5 per cent, respectively.

4.1.7 **Profit Expense Ratio (PER)**

The profit expense ratio indicates whether or not a bank is making profit with a given expense. It also indicates whether or not a bank is cost efficient. Thus, a higher PER is better for a bank (CBN, 2013). Generally, the banks were relatively cost efficient for most of the study period, except between 2007-2009 when the ratio fell to the lowest levels. CBN (2013) attributed the development to the impact of the 2007-2008 global financial crisis which depressed profits in most financial institutions.
4.1.8 Average Income Generated Per Employee (AIGE)

Income or profit generated per employee was ₦0.144 million, and ₦0.246 million, respectively, for the industry, and DMBs, on average, for the 11-year period 1990-2000. In the 5-year universal banking era, prior to the consolidation ended 2005, average profit generated per employee generally increased significantly above the average levels in the preceding 11-year period. The average profit generated per employee in this period was ₦0.93 million and ₦1.64 million, respectively for the industry and the DMBs. The development resulted from higher level of economic activities and higher levels of gross income for banks. The post consolidation 5-year period recorded a negative ratio for the DMBs, owing to the losses posted by most of the banks in 2008-2009. The AIGE for the industry and the DMBs was ₦2.4 million and negative ₦0.66 million, respectively.

4.1.9 Average Business Generated Per Employee (ABGE)

The average business generated per employee is given by the ratio of the sum of total advances and total deposits to the number of employees. This is a measure of staff productivity (CBN, 2013). The ABGE increased steadily between 1999 and 2010. The industry ABGE increased from ₦1.0 million to ₦2.15 million during the same period, with an 11-year average of ₦6.6 million. In the period of the introduction of UB in 2001 up to the end of consolidation ended in 2005, ABGE increased further for banks. The trend continued in the post-consolidation period, 2006-2010, both for the annual and the 5-year averages.

4.1.10 Return on Capital Employed (ROCE)

Return on Capital Employed is another standard measure of bank performance. It indicates to shareholders, how well management is utilizing their investment and long term commitments on book value basis to grow their wealth (CBN, 2013). The analysis of the ROCE dynamics showed that generally, it trended downwards during the period covered by the study for the banks. On period-average basis, the banks recorded their lowest average ROCE, attributed largely to the negative impacts of the 2007-2008 global financial crisis on bank earnings. The best period average posted by the DMBs was 45.6 per cent in the pre-UB, industry posted 30.6 per cent in the pre-consolidation.

4.2 Findings

From the data presented and discussed this study found out the followings:

i. The analysis of the performance of banks in Nigeria within FRA produced mixed results;

ii. Analysis of the dynamics of FRA indicated that banks were generally efficient;

iii. In general it can be deduced that the earning power of assets in the banking industry has been declining since the year 2000.

5. Conclusion and recommendation

This study has presented a series on performance indicators, using FRA, for the banking industry. The results of the performance indicators, using ratios, did in some cases show some trends. Therefore, from the point of FRA, it may be suggested that banks should focus more on efficiency in the deployment of assets, pricing decisions and increasing the productivity of both human and material resources.
References


VALUE RELEVANCE OF FINANCIAL STATEMENTS UNDER THE FAIR VALUE ACCOUNTING REGIME

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Abstract

The mandatory introduction of International Financial Reporting Standards (IFRS), in Nigeria, with effect from 2012 accounting year has so far reshaped the financial reporting paradigm in the country. The key concept of the new reporting standard is fair valuation. Since the emergence of the concept in Europe and its subsequent adoption in other countries around the globe, including Nigeria, debates were on about the value relevance of the new reporting framework. This study examines the overall value relevance of fair value accounting relative to the historical cost reporting framework of Deposit Money Banks (DBMs) in Nigeria. In view of this, two hypotheses are developed, namely: fair value accounting is not significantly relevant to market prices of deposit money banks Nigeria, relative to the historical cost accounting; fair value accounting does not significantly improve the explanatory power of the firms’ book values, relative to the book values under the historical model. The paper uses Olhson (1995) price model as technique of analysis. A population of 20 banks was considered, out of which a sample of 15 banks was arrived through the convenience sampling technique. Data for the study were extracted from the annual reports and accounts of the banks. The study finds that on the overall the fair value model is more value relevant than the historical cost model and that fairly reported book values are more explanatory than their historical model counterparts. The paper concludes that fair value accounting model is more explanatory than the historical cost model.

Key words: Fair Value Accounting, Historical Cost Accounting, Value Relevance and Deposit Money Banks.

1.0 Introduction:

The mandatory introduction and adoption of International Financial Reporting Standards (IFRSs) in Nigeria require Significant Public Interest Entities to report their first IFRS compliant financial statements by first January, 2012. Other significant public interest, according to the Nigerian roadmap for adoption, were to comply and report their first set of IFRS financial statements by 1st January, 2013; while the small and medium scale enterprises were to report by first January, 2014. This adoption, signaled the adoption of fair value accounting in the financial reporting.

Fair value accounting entails the use of prevailing market prices in arriving at reported accounting amounts. It is a market-based measurement used in determining the price at which an asset could be acquired and liability transferred between market participants or transacting parties. The use of fair value measurement is a major shift from the historical accounting reporting framework to a new reporting regime that is expected to the address the information needs of various users of the financial statement. Hence the concept of General Purpose Financial Statements. As such, Belkaoui (2004) opines that in as much as the objective of financial statements are to provide for the information needs of the users; it might not be achievable because of the divergent needs and sophistication of the consumers of the
financial information. Therefore, reporting entities must decide the form of information that would be relevant, reliable and comparable to address the need of the various users. This is presumed to be achieved through the international financial reporting standards.

It expected that the adoption of fair value accounting might increase the explanatory power of the financial information of reporting entities. This is because the true values of the key financial information elements of these entities might be revealed as a result of non-inclusion of extra ordinary income items, thereby enabling a more accurate projection and planning by users. Stock market prices are expected to appreciate with the adoption of fair value concept, this is due to objective measurement of assets and obligations. The IFRS assumes such measurement to be timely and transparent.

The market stock prices are expected to receive some share of effects from the signals sent by the fair valuation of the financial instruments, transmitted through the entities book values and earnings, using the mark-to market model. However, where mark-to-market prices could not be obtained owing to the absence of an active market, the fair value of assets and financial instruments has to be estimated using either the mark-to-model or estimated prices. This could lead to less reliable information, since managers may use their discretion to manipulate accounting information (Hodder et al., 2006b). In addition, the concept of fair value accounting is expected to affect other key element of financial reporting, that is firms income.

In view of the foregoing expectation, there have been mixed opinions and findings about the explanatory power of the fair value accounting model under the International Financial Reporting Standards regime, in comparison to the accounting explanatory power under the historical accounting regime. Some studies, such as (Barth 1994, Kim and Khurana, 2003;Barth, Biscarri and Espinosa, 2010;Chea, 2011 and Zimmerman, 2013) argue that the fair value accounting have proved to be more explanatory than the historical cost model. While some other studies Ryan (2008) and Platinet. al. (2008a) opine that fair value accounting model does not any way show superiority over the historical cost accounting model.

The paper therefore primarily examines the value relevance of accounting information undertwo reporting models the fair value accounting model and the historical cost accounting model. Secondly, it examines the explanatory power of the firms’ book values and earnings between the two models. In view of these objectives, the following hypothesis is developed;

$H_0$: *Fair value Accounting is not significantly value relevant to share prices of deposit money banks in Nigeria, compared to pre IFRS adoption period.*

The motivation for the paper hinges need to test the promises of financial information relevance, reliability, transparency and timelines offered by the International Financial Reporting Standards, on the Nigerian data. Analyzing the relationships between fair value incomes, book values of financial instruments on one hand and the stock market prices on the other hand will assist policy makers, investors and other financial information users in understanding the value addition or otherwise that comes with the adoption of the international reporting standards. It will assist in understanding the additional or less impacts it has on other relevant banking industry parameters.

The reminder of the paper is organized as follows: section two dwells on the literature review and theoretical framework; section three is on the paper methodology and model specification, section four of the paper discusses the findings of the paper while Section five wraps up the paper by way of conclusion and recommendation.

### 2.0 Literature Review

The adoption of fair value accounting is to provide values that are closer to firms’ intrinsic values that are aimed at providing investors with more value relevant accounting
information (Kousenidis, Ladas and Negakis, 2010). Thus, this therefore, implies that accounting information generated through the International Financial Reporting Standard framework should be more value relevant than any information generated through other means. This is because fair value lies at the heart of the new reporting model (IFRSs). It is therefore, expected that fair value provides highly relevant and incremental information relative to other forms assets valuations.

2.1 Fair Value Accounting and Stock Market Prices

The impact of accounting policies and principles in the financial statements of companies could not be over emphasized. These impacts could best be perceived or understood through the reaction of the financial information users’ on the signals received from the capital markets. Thus, the relevance of accounting disclosures and their usefulness could be linked to the stock market prices that emanate due to those disclosures. It is therefore, expected that the introduction of fair value accounting in financial reporting will engender more transparency, timeliness and comparability and the overall quality of the financial information made available by reporting entities. Thus, in assessing whether an accounting number of interests adds to information made available to investors and other information users, price reactions are considered evidence of value relevance (Holtheusen and Watts, 2001).

Barth, Biscarri and Espinosa (2010), assess the impact of fair value measurement on the firm valuation across the European financial market using the simple Olhson price valuation model. The study also attempts at examining the implications of conservatism against the fair value accounting, thus incorporating economic cycle in the said Olhson model. Two financial reporting frameworks were utilized for the study, the IFRS and the US GAAP.

The study reports that the adoption of fair value accounting reduced the quantity and importance of deferred accounting information that results in less procyclicality. And more importantly both book values and abnormal earnings become linked to firm valuation in a more consistent manner. Thus, the findings imply higher value relevance of accounting numbers with the introduction of fair value measurement. However, the study only compared two different regional standards, IFRS in the Europe and the US GAAP in the US. It does not examine the application of the two different standards on the same elements of the sample.

In a related development, Barth (1994) investigates the reflect of disclosed fair value estimates of banks investment securities and security gains and losses on the reporting entities share prices, relative to the historical cost accounting model. The study achieves the objective by measurement error model. The study reveals that fair value of investment securities provide higher explanatory power beyond that provided by historical cost.

Zimmerman (2013) in his doctoral presentation wanted to find answers to the question: whether changes in accounting standards occasioned with the introduction of IFRS, are associated with stock market price reaction, as it affects markets value of equity and the risk and return profile of banks and service firms in the US. The study reports on the overall, that strong evidence was provided that changes in accounting standards solicit stock market reaction. The study went further to investigate similar question in the European markets, it found that stock prices reacted to the changes in accounting standards, especially on financial instruments. The study employed the methodology of event study.

Esphabodiet el al (2001) examines the reaction of equity price to the pronouncement of exposure draft on stock-based compensation accounting, thereby assessing the value relevance of its recognition and disclosure in the financial statement of US firms. The study raised two vital questions, namely, whether equity prices react to the stock based compensation accounting as an issue from the IFRS; whether abnormal returns vary cross-
sectionally with firm specific variables. As a response to these, the study finds that stock price impact was positively related to the existence of loss carry forward, which shows the extent of stock option usage; in addition, the results indicate that firms exhibited significant abnormal returns as result of the issued exposure draft, requiring firms to recognize stock based compensation. However, the findings of this study centres on a mere pronouncement of an exposure draft of a standard. The findings might have been different if it were an already issued standard, because the response to the standards might have stabilized over time, which would provide an optimal environment for the analyzing the impact of the standard on the stock market prices.

Niu and Xu (2009) assess market response to the recognition of employee stock options expenses using fair value approach in the Toronto stock exchange. The study reveals that the market reacts to issue in two different ways; prior and after implementation of the standard. Prior to the implementation of the standard, the market interprets the employee stock option expenses negatively and as such impacts negatively on firm valuation, whereas, with the introduction of the standard based on fair valuation, positive association is perceived by the market, thus, impacting positively on firm valuation. On the overall, the study indicates that the fair value based recognition of employee stock option expenses enhances the accounting information quality of the reporting firms as it impacts on the firm value.

In a similar study, Alkadash and Abdullatif (2009) finds a significant positive and high value of earnings per share of companies listed on Jordanian stock market when fair values are used in valuing firms financial instruments. However, the study concludes by questioning the suitability of worldwide application of international financial reporting standards (IFRS), without taking into considerations the peculiarities of developing countries like Jordan.

In view of the foregoing, this study aims at investigating the relationship between prices and accounting numbers in a different way; by examining the reaction of stock market prices to fair value recognition and disclosure. A modified version of Ohlson (1995) price valuation model shall be employed, using hand captured accounting data, directly from the annual reports and accounts of the sample, without figure reinstatement. The period covered by the study shall be divided into pre and post IFRS adoption. This is to enable comparative examination of the two different reporting models. Also importantly, is locating the study in one of the developing countries, Nigeria.

2.3 Theoretical Underpinning

The paper is underpinned by the information decision usefulness theory. The theory strives to provide set of accounting information that would be economically useful to a wide range of users. Hence, it is the very objective of accounting standard setting bodies. This theory boldly captured by the International Accounting Standard Board (IASB) as the main objective of its conceptual framework.

It is to provide information about financial position, financial performance and changes in the financial position of an enterprise that is useful to wide range of users in making economic decisions. Such information enable users to identify and assess entity’s financial strength and weakness, which could help the users to determine the entity’s liquidity and solvency. While information about the payment priorities with regards to current and future obligations, enable users to predict how future cash flows would distributed among those who have claims against the reporting entity. In all, the explanatory power of entity’s financial information is put to test by the theory.

In view of the theory, this study attempts at examining the accounting information relevance produced through the fair value accounting and the historical accounting models.
3.0 Methodology and Model

The paper employs the relative information content test to examine the value relevance accounting numbers from the two reporting models. Relative information content test, assesses accounting numbers under different reporting measures, with a view to determining the measure with the highest information disclosures. This is very relevant in a circumstance where mutually exclusive reporting measures are used (Khurana and Kim, 2003).

Population for the study is 20 listed Deposit Money Banks (DMBs) on the Nigerian stock exchange, as at 31st December, 2014. Out of which a sample of 15 of DMBs was arrived at using the convenience sampling technique. Only firms that meet up with certain practical criteria developed by the study are enlisted. One of the criteria is that, a firm must have been consistently quoted on the Nigerian Stock Exchange (NSE). Secondary data covering a period of 10 years were used for the analysis. The 10-year period covers 2007-2014. The period coverage is divided into pre IFRS adoption and post IFRS adoption periods; with each covering 5 bank years observation. The pre adoption period covers 2007-2011 while the post adoption period covers 2010-2014; with 2010 and 2011 being reinstated in line with IFRS 1. The study uses multiple regression analysis on the platform of the Olhson (1995), price valuation model

3.1 Model Specification

In order to test the hypothesis of the study, the Edward, Bell and Olhson (1995) price valuation model is used. The model provides a simple and logical framework for the relationship between stock market prices and accounting data. Having been based on Clean Surplus Accounting theory, the model states that firm value equals to the current book value of the firm plus change in future abnormal earnings. Whereas the book value proxies present value of expected future normal earnings, the current earnings are taken as proxy for abnormal earnings and other value relevant information that could be integrated into the model.

The model is based on a number of assumptions that include the following: that dividends and accounting data must first, satisfy the clean surplus accounting relation. This relation is given as the equality of book values at the end of an accounting year to book values at the beginning of the accounting year plus income minus dividend. Secondly, market value of a firm is determined by the present value of expected dividends (Feltham and Olhson, 1995; Sami and Zhou, 2004; Maxmillian and Max, 2011). The model has been widely used in empirical studies to examine the value relevance of accounting information under different reporting environments in relation to capital market responses (Barth et al., 1995; Barth et al., 2006; Barth et al., 2007; Francis and Schipper, 1999 and Kothari, 2001). The first form of the model is presented below:

\[ P_t = \alpha + \beta_1 bvs_{it} + \beta_2 eps_{it} + \beta_3 ceps_{it} + \epsilon_{it}, \]  

Where:

- \( P_t \) = Market Price of firm “i” at period t, and is determined as the closing market value of the firm, \( bvs_{it} \) = Book Value per share of firm “i” at period t, measured as the total book value of a firm scaled by the shares outstanding at the end of the period.
- \( eps_{it} \) = Earnings per share of firm “i” at period t, measured as the profit before interest and tax for the pre IFRS period; and before comprehensive income for the post IFRS period, scaled by number of shares outstanding at the end of a period.
- \( ceps_{it} \) = Change in Earnings per share,

While \( \alpha \) is the slope of the equation; \( \beta_1, \beta_2 \) and \( \beta_3 \) are the coefficients of book values, earnings and change in earnings.
In line with the provision for incorporating other value relevant information into the model, the study includes a variable to control the firm sizes. This is justifiable considering the wide disparity among the firms within the industry under study. Some banks have larger banking networks than others; this would translate into having bigger asset sizes than other, and could also translate into having higher customer strength. To control for this, some studies such as Wang and Alam (2007) used total asset, which is commonly used by researchers, while Muhanna and Stoel (2010) used total sales figure per share as a control for firm size. Therefore, to avoid possible bias in the results and other econometric complications, this study adopts the total sales per share to control for the firm size. Therefore, equation (1) is modified as follows:

\[ p_{it} = \alpha + \beta_1 bvs_{it} + \beta_2 eps_{it} + \beta_3 ceps_{it} + \beta_4 gep_{it} + \varepsilon_{it} \]  (2)

Where: \( Gep \) = Gross earnings per share of firm \( i \) at time \( t \).

Results and Discussion

Regression Results

<table>
<thead>
<tr>
<th>STATISTICAL VARIABLES</th>
<th>HISTORICAL MODEL</th>
<th>FAIR VALUE MODEL</th>
<th>DIFFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Square</td>
<td>0.31</td>
<td>0.55</td>
<td>+0.24</td>
</tr>
<tr>
<td>F-Statistics</td>
<td>31.32</td>
<td>59.35</td>
<td>+28.03</td>
</tr>
<tr>
<td>F-Significance</td>
<td>0.0000</td>
<td>0.0000</td>
<td></td>
</tr>
</tbody>
</table>

Models coefficients, t-values and Significance

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
<th>t-value</th>
<th>Coefficients</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bvs</td>
<td>0.1865</td>
<td>0.50</td>
<td>0.5675</td>
<td>2.50*</td>
</tr>
<tr>
<td>Eps</td>
<td>0.8721</td>
<td>0.21</td>
<td>1.9900</td>
<td>4.22*</td>
</tr>
<tr>
<td>Ceps</td>
<td>-1.4237</td>
<td>-2.51*</td>
<td>-0.2538</td>
<td>0.21</td>
</tr>
<tr>
<td>Gep</td>
<td>1.5147</td>
<td>2.96*</td>
<td>-0.0605</td>
<td>0.78</td>
</tr>
</tbody>
</table>

Source: STATA 10.0 Regression Result. *1% Level of Significance, ** 5% Level of Significance, *** 10% Level of Significance.

The Table present results for the first hypothesis of the study. The hypothesis states that “Fair value Accounting is not significantly value relevant to share prices of deposit money banks in Nigeria, compared to pre IFRS adoption period”. From the foregoing, two results panels are presented, the first panel is on historical cost model. Under this panel, change in earnings per share “ceps” and gross earnings earnings per share “gep” are significant at 1%, signifying 99% confidence Interval. It shows that of all the variables, only change in earnings and gross earnings impacts on the model.

Although, change in earnings “ceps” impacts negatively on the model, thus showing an inverse association with share price. That is, a percentage increase in share price, it is determined by a 1.42 percentage decrease in earnings. This result is not as expected and does not reflect the working of the theory. It however underscores the price and financial manipulation engaged by the banks in Nigeria within the periods of year 2004 to 2009. Within this period most banks engage in insider trading, shares buy back and other forms of...
manipulation, in order to boost their price standing in the capital market. This could actually be a source of problem in parameter estimation for the model.

In addition, a very good percentage of the data obtained for the panel members, show negative changes in earnings over the period, hence the inverse relationship. Gross earnings per share impacts positively as expected. Meaning that, as the incomes of the firms’ increases, the share prices reflect such increases with an increasing value. Book values and earnings per share are irrelevant to the model, because both are not significant. On the overall, the F-Statistics of the historical cost model is significant at 1% level, this shows the fitness of the model for estimation. The F-value and the R-square Stand at 31.32 and 31%, respectively. The R-square shows the extent to which the four variables in the model jointly explain market prices.

On the other hand, book values per share and earnings per share, show positive impacts on the Fair value model. The variables are significant at 1% significance level. Indicating that, N0.56 and N1.99 are responsible for a percentage increase or decrease in share prices of the firms. Therefore, market participants factor the two variables in valuing firms under the fair value model. This is in contrast to the result under the historical model where the variables are insignificant. The model is not also free from the endogenous influence of the banks management practices, as indicated by the variables: “change in earnings “and the “gross earnings”, though insignificant in the model, probably as a result of the guidelines in the IFRS framework. The F-Statistics and R-square stands at 59.35 and 55% respectively.

The F-statistics shows that the Fair Value Model is more fitted than the Historical Cost Model by 28.03, while on the basis of the R-square, the Fair Value Model explain share prices more than the Historical Cost Model by 24%. From the foregoing, it is evident that the fair value model is value relevant to share price valuation beyond the historical cost model. This is strongly supported by the value of R-Square of the model. On this basis of this we reject the null hypothesis stated earlier. The finding contradicts that of Lev and Zarowin (1999) and consistent with the findings of Barth (1994), Barth, Biscari and Espinosa (2010) and Zimmerman (2013).

5.0 Conclusion

The Findings from this study imply that fair value model focuses mainly on protecting the interests of entity owners and their managers, to the neglect of other major stakeholders such as the depositing public. This fact is demonstrated by the findings of hypotheses one and three. Book values and earnings, being the major interest of stockholders show significant impact under the fair value model. Owners are interested in the quality and persistence of earnings which would guaranty the continuous survival of the firm’s business. They are also interested in the improved asset book values of the business. This assist in creating a good market niche for the business, thus improving the competitiveness of the firm and marketability of its stocks in the Capital Market.

In view of the better explanatory power of the mandatorily adopted IFRS, Government and its regulatory agencies should ensure seamless compliance by the reporting entities. As such regulatory agencies should provide all necessary requirements for compliance and conduct their oversight function with diligence. This will reduce cost of compliance by the entities and will guarantee availability of relevant information to users.
References:
THE IMPACT OF ZAKAH AND SADAQAH ON POVERTY REDUCTION: AN ISLAMIC APPROACH TO NATIONAL DEVELOPMENT

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Abstract  
This study is an assessment of the impact of Zakah and Sadaqah on Poverty alleviation, The study uses both primary and secondary data for a period of Five years from 2008 to 2012, the primary data was collected using a structured questionnaire on sample of 155 respondents selected using a non-probability sampling technique. Applying Analysis of Variance (ANOVA) Method of SPSS to find out the differences in income of the beneficiaries before and after the receipt of the Zakah. The result vividly shows that there are differences in the income of the Zakah recipients after the receipt of Zakah. It has also been concluded based on the findings that Zakah has very important role to play on poverty alleviation in Kebbi State, it would also help reduce the rate of unemployment, inequality in income distribution, rate of crimes and also help improve productivity level. It has been gathered that the Board needs to be empowered both financially and morally in order to help raise their standard, and effectiveness in Zakah collection and distribution. The study predicts massive improvement if Zakah policy is fully implemented backed by laws and legislative bills.

1.0 BACKGROUND TO THE STUDY  
Poverty has been an endemic that hinders the development of several Islamic countries; let alone a developing country like Nigeria, where Muslim takes only a small proportion of the population of the citizens. Poverty indirectly encourages low productivity and promotes less competitiveness. Poverty incidence incurs negative effects due to the inability of access to economic resources. In other words, human incapability is not the root course of poverty, but the system and the possibility of inequitable distribution of assets and properties particularly in Indonesia (Dimas and Radtya 2010) and Nigeria alike.

1 This paper is part of the output of M.Sc. Economics research work conducted by the first author of the paper, in the Department of Economics, Usmanu Danfodiyo University Sokoto, Nigeria.
Programmes and policies such as National Directorate of Employment (NDE), Better Life Programme (BLP), followed by Family Support Programme (PSP) and Family Economic Advancement Programme (FEAP). Poverty Alleviation Programme (PAP), National Poverty Eradication Programme (NAPEP) all failed in their bid for poverty alleviation. However, these programmes introduced failed to bring down the level of poverty in Nigeria. However, changes in governments and political instability have adversely affected the success of these programmes (Hassan 2012).

Economists and Islamic Scholars like Ibn-Khaldun (n.d) have shown serious concerns regarding the incidence of poverty; this appears to be common phenomena in the Muslims world. Zakat as an instrument of poverty reduction (Hassan 2012), came into existence many centuries ago, dating back to the period of Prophet Muhammad (SAW), and this practice has continued to the present time. Although the practice of Zakah has not been strongly executed as in the past, many rich men and women find it difficult to assist the state in alleviating poverty through paying their Zakah. Despite efforts by Islamic clerics to revive calls and preaches on the importance and necessity to pay Zakah in contemporary times, which many rich people have forgotten. Zakah is believed not only as a means of providing necessities for the poor, but also as a means of reducing crimes in the societies (Wiranata 2009). Despite the impact of zakat on poverty reduction, Nigeria has no standardized policy measures for the effective Zakah administration.

Consequent upon this, it is expected that the study will serve as a guide to policymakers on the necessity to pass a bill that will make paying Zakah a compulsory act for the well placed and rich Muslims in Kebbi State, to bridge the gap that exist between the rich and poor. Secondly, the study is expected to serve as a guide to Islamic scholars on the need for them to intensify efforts on educating Muslims on the importance placed on the payment of zakah as and when due, which could greatly lead to socio-economic stabilization. Thirdly, the study is expected to contribute to the existing literature on the matter as well as a guide to future researchers on Zakah as an option for poverty alleviation.

From the foregoing, the broad objective of this research to analyze the impact of Zakah and Sadaqah on poverty alleviation in Kebbi State toward national development. While the specific objectives of the study are:

i. To investigate the extent at which the Kebbi State Zakah Board has assisted in poverty alleviation in the state.

ii. To examine whether there is any significant difference in the incomes of beneficiaries before and after receipt of Zakah from Kebbi State Zakah Board.

iii. To analyze the major expenditure of Zakah recipients in the State.

2.0 CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

2.1 Concept of Zakah

Zakah is “that portion of a man’s wealth that is designated for the poor”. It is also defined as, “a compulsory levy imposed on Muslim so as to take surplus money or wealth from the comparatively well-to-do members of the Muslim Society and give it to the destitute and needy” (Zaim1989:101).

The institution of Zakah is one of the forces through which brotherhood in Islam is enhanced. The Qur’an says that only those who pay Zakah are in the “brotherhood of faith”. In the contemporary situations Zakah is the institution that Islamic government used in alleviating poverty over the period of time even before now. Zakah is an important institution in the socio-economic framework of Islam. It is one of the five (5) pillars on which the Islamic code of life has been established. Zakah frequently follows the injunction of Salah in the Quran. The obligatory payment of Zakah has been ordained and enforced by Prophet...
(SAW), and continued by His companions. Historically speaking, Zakah disbursed by Islamic states in the past improved welfare of the people and proved efficaciously in fostering social cohesion particularly in the area of community building in the light of shari‘ah.

Several verses in the Qur’an revealed in Makkah had discussed about zakat as seen in Q7:157, Q19:31, and 55. Q21:72, Q23:4, Q27:3, Q30:39, Q31:3, Q41:7 (Gatawa and Sani 2013).

2.2 Concept of Poverty

Actually, there are many definitions of poverty. Poverty has been conceptually defined as the deprivation of well being. Levitan (1980) defines poverty as the lack of goods and services which are needed to reach the proper standard of living. According to World Bank (1990), poverty refers to the inability to attain a minimum standard of living. Aluko (1975) opined that poverty is lack of command over basic consumption needs, which means that there is inadequate level of consumption.

Islam does not prohibit people to hold property, however, it has firmly forbidden wealth or income that is extremely concentrated and centralized in the hand of certain people or individuals. Islam preaches equitable distribution of assets and properties. This approach was to give room for equity and justice, so that income and wealth would be able to fulfill the principle of fairness and justice. Thus, issues established here are how to achieve the distributive goal by utilizing institutional approach (Dimas Bagus and Radtya 2010).

2.3 Review of Some Poverty Alleviation Policies in Nigeria

The poverty alleviation programmes and policies that different Nigerian governments introduced are sequentially stated as National Directorate of Employment (NDE), Better Life Programme (BLP), followed by Family Support Programme (FSP) and Family Economic Advancement Programme (FEAP), Poverty Alleviation Programme (PAP), National Poverty Eradication Programme (NAPEP). The operational philosophy of the programmes was to assist majority of Nigerians to set up their own businesses in all fields of small scale industries and enable them become potential employers of labor in such establishments, to boost the economic activities in the rural areas via the enhancement of rural incomes and the arrest of rural-urban migration Reduce the problem of unemployment and hence raise effective demand in the economy Obadan (1996).

Even though these programmes have succeeded in achieving some few goals but the programmes are not able to reduce the level of poverty as targeted. However, the programmes paid little attention to the framework of allocation of funds and sustainability aspect of the poverty alleviation programmes. Consequently, the political connotation of the poverty alleviation programmers served as important threat to the success of the programmes. The programmes also lacked appropriate framework for the target beneficiaries to get what is expected of them due to the timing and phasing of the direct labor and jobs.

2.4 Kebbi State Poverty Reduction Programme

The Kebbi state programme was initiated in October, 2001. It was in response to the dare need to tackle the menace of social instability afflicting the women and unemployed youth. By and large, Kebbi state poverty reduction programme was designed to curb the problem of poverty in the state. It applies itself to the task of redirecting their energies as well as reorientation their attitudes toward self and societal development. Kebbi State Poverty Reduction Programme is divided into short term and medium trades of six (6) months duration while long term trades are of 12 months there are also the scholarship scheme and extra mural programmes. The short term trades were in soap making, catering, computer, knitting and fine arts. The medium term trades include tailoring and fashion design, hair
There was also scholarship scheme to the deserving students of university, polytechnics and colleges of education and secondary schools (Action Plan, 2007). Despite the success of these programmes, they were unable to introduce measures that will bring down the level of poverty in Nigeria, also changes in government and political instability have adversely affected the success of these programmes.

Methodology and Data

3.1. Data

The study is an investigation into the impact of Zakah and Sadaqah on poverty alleviation in Kebbi state. The study uses both primary and secondary data for a period of Five years from 2008 to 2012, this was the period when the activities of the board are at peak. Primary data was collected using structured Questionnaire distributed to respondents. While secondary data was collected from published articles, the Qur’an, Hadith and Qiyas (Analogy) of the Ulama, as well as documented materials and data from the board.

3.2. Sample Size and Sampling Technique

In the absence of list of beneficiaries from the Board, a non-probability sampling technique in the form of purposive sampling method was used in selecting the sample. A total of 30 Questionnaires were administered to the members and Staff of the Board, while 200 copies of questionnaires were distributed to the Zakah beneficiaries across the state. However, 125 questionnaires out of the 200 questionnaires distributed to respondents other than officials were considered and used for the study these is because of failure to return the questionnaires or inconsistency in filling the questionnaires. A total of 155 Questionnaires were considered for this study.

3.3. Variables Measurement

The variables are as follows:
- \( MSTr = \text{Means squared between the groups} \)
- \( MSW = \text{Means squared within the groups} \)
- \( N = \text{no. of observations} \)
- \( S_{i} = \text{Standard deviation for each group} \)
- \( Sx = \text{Standard deviation for the whole groups} \)
- \( X_{i} = \text{an individual group mean, and} \)
- \( X_{t} = \text{Overall mean for the groups} \)

3.4. Method of Data Analysis

The statistical technique used in the analyses of the data for this research includes frequency tables, simple percentage and charts, The Analysis of Variance (ANOVA) was used in testing the hypotheses of this research and also in determining whether there is any significant differences between the means of the income of the beneficiaries before and after the receipt of Zakah at the selected level of significance or probability level.

3.5. Model Specification

\[
F = \frac{MSTr}{MSW}
\]

\[
MSTr = nSx^2
\]

\[
sx = \frac{\sqrt{\sum(x_{1} - x_{t})^2}}{\text{no of means} - 1}
\]
\[ x_t = \frac{x_1 + x_2 + x_3 + x_4 + x_5}{5} \]

\[ MSW = \mu^2 \]
\[ = \frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2 + (n_3 - 1)s_3^2 + (n_4 - 1)s_4^2 + (n_5 - 1)s_5^2}{n_1 + n_2 + n_3 + n_4 + n_5 - 5} \]

Critical F Value @ 5% level of significance
\[ = (F_{dF_1}, df_2 \propto 0.05) \]
\[ = (F_{df_k-1}, df_{(n-k), \propto 0.05}) \]

The decision rule is that if F calculated value is greater than F critical value the null hypotheses would be rejected and the alternative hypotheses will be accepted. And if F calculated value is less than F critical value alternative hypothesis would be accepted.

4. Data presentation and Discussion
4.1. Descriptive Statistics
4.1.1. Presentation of data on demographic features of individual recipients of zakat

The table 1 below present the demographic features of the respondents:

Table 1: Demographic Characteristics of the respondent

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>74</td>
<td>59.2</td>
</tr>
<tr>
<td>Females</td>
<td>51</td>
<td>40.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>125</td>
<td>100</td>
</tr>
<tr>
<td><strong>Occupation of the Respondent</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civil servants</td>
<td>45</td>
<td>36</td>
</tr>
<tr>
<td>Farmers</td>
<td>30</td>
<td>24</td>
</tr>
<tr>
<td>House wives</td>
<td>35</td>
<td>28</td>
</tr>
<tr>
<td>Unemployed</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>125</td>
<td>100</td>
</tr>
<tr>
<td><strong>Categories of zakat recipients</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>Needy</td>
<td>30</td>
<td>24</td>
</tr>
<tr>
<td>Wayfarer</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Indebted</td>
<td>20</td>
<td>16</td>
</tr>
</tbody>
</table>
The Table above indicates that female represent 74(59%) of the respondents while male represents 51(41%). The constitution of civil servants is 45 (36%) while farmers represent only 30 (24%) of respondents. House wives constitutes 35 (28%), and Unemployed persons were 15 (12%). The classification of respondents on what qualifies them to receive zakat shows that 50(40%) are poor, 30(40%) are needy, 10(08%) are wayfarers, 20(16%) are indebted while 15(12%) are new converts to Islam.

Table 2. Utilization of zakat collected from Zakah board.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption</td>
<td>90</td>
<td>72</td>
</tr>
<tr>
<td>Investment</td>
<td>22</td>
<td>18</td>
</tr>
<tr>
<td>Other Expenditure</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Payment of debt</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>125</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field work 2013

Table 2 indicates that 90(72%) of the Zakah recipients used their Zakah for Consumption purposes, 22 (18%) for investment, 10(8%) for the payment of debt, while only 3 (2%) used Zakah for other expenditures. The following table shows the respondents opinions on the effectiveness of the Board.

4.1.2. Presentation Of Data Obtained From Zakah Board Officials

The table below present the Duration of service of the Zakah official on the board.

Table 3: Duration of Service of officials

<table>
<thead>
<tr>
<th>Alternatives/Duration in years</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-4</td>
<td>11</td>
<td>37</td>
</tr>
<tr>
<td>5-7</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>8-10</td>
<td>10</td>
<td>33</td>
</tr>
<tr>
<td>TOTAL</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field work 2013

The Table 3 shows that the category of 30 staff that responded for this study. Out of which 11(37%) spent 2-4years in the service of Zakah Board, 9 (30%) spent 5-7 years while 10(33%) served for 8-10 years on the board.
Table 4. Volume of Zakat Wealth collected from zakat payers over the 5 years
Source: Field work 2013

<table>
<thead>
<tr>
<th>WEALTH CATEGORY</th>
<th>Volume of Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2008 (N)</td>
</tr>
<tr>
<td>CASH (N)</td>
<td>12,470,650</td>
</tr>
<tr>
<td>GRAINS (SACKS)</td>
<td>2524</td>
</tr>
</tbody>
</table>

The Table 4 indicates that in the year 2008 the total amount of cash collected was N12, 470, 650 with the corresponding Bags of grains collected as 2524. In 2009, a total amount of N4, 861,500 and 1515.5 bags were collected, this reflects serious fall down compared to the year 2008. In the year 2010, the trend continued with the collection of about N4, 277, 000 in cash and increase in the grains with 5216 bags. In the year 2011, there was little increase in cash but fall in grains as N5, 245,000 and 472 bags were collected, and the year 2012 also represented another down turn with the collection of N3, 700,000 and 320 bags of grains. The total collection of 5 years period was N30, 554,650 in cash, and 10, 047 bags of grains.

Table 5; volume of zakah wealth distributed to various categories of recipients.
The Table 5 above represents the distribution of the Zakah collected in the period of 5 years. The Board, in collaboration with the District heads of towns and villages, distributes the zakah to the beneficiaries. The poor category has the highest proportion annually, followed by the needy, the wayfarer, then those indebted, and finally the new converts.

Opinion of zakat recipients on effectiveness of zakah board on alleviating of poverty and crimes.
Table 6 Effectiveness of the Board Base on Information from Zakah Board Officials

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Effective</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td>Effective</td>
<td>80</td>
<td>64</td>
</tr>
<tr>
<td>Fairly Effective</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Ineffective</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>125</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field work 2013

The table 6 indicates that 20 (16%) of the respondents were of the opinion that the activities of the Board were very effective, while 80(64%) said it was effective, this means that 15 (12%) said it was fairly effective, while 10 (8%) ineffective. The item below also shows the respondents perception on the distribution measure used by the board.

Table 7 standard of the distributive Measure of the Board by the respondents.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td>Fairly Standard</td>
<td>90</td>
<td>72</td>
</tr>
<tr>
<td>Not standard</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>125</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field work 2013

Table 7 shows that 90 (72%) of the respondents were of the view that the measure Zakah Board used in distributing zakah was fairly standard, 25(20%) opined that it is of standard, and 10 respondents representing (8%) said is not of standard. The next item also reflects the opinions of the respondents on poverty as a source of crime and low productivity. Table 8: opinion of the respondents on whether Poverty is one of the sources of crime and low productivity.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>True</td>
<td>115</td>
<td>92</td>
</tr>
<tr>
<td>False</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>125</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field work 2013

Table 8, indicate that 115(92%) agreed that poverty is one of the major source of crime and low productivity, while 10 (8%) did not agree. The table below present’s data obtained from the respondents on the compliance of Islamic calls by the Zakah.
4.2. Inferential Results

Chart 1.

**Individual Value Plot of Resp. vs Categ. of Recipient & Year of distri.**

Source: SPSS 2013

It raises the level to about 70%, as reflected in \( r \) (adjusted Coefficient of Correlation) value=70.36 (adjusted), while 30% of the influence are controlled by other factors not within the variables. Likewise the distribution of Zakah income has reflected about 72% increase in the income of the recipients, all things being equal;

Chart 2.

Table 9, there is positive and significant differences in income of the beneficiaries.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category of Recipients</td>
<td>4</td>
<td>5.04438E+13</td>
<td>1.26110E+13</td>
<td>13.47</td>
<td>0.0000</td>
</tr>
<tr>
<td>Year of distribution</td>
<td>4</td>
<td>1.03866E+13</td>
<td>2.59664E+12</td>
<td>2.77</td>
<td>0.063</td>
</tr>
<tr>
<td>Error</td>
<td>16</td>
<td>1.49814E+13</td>
<td>9.36335E+11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>7.58117E+13</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: **ANOVA RESULT, SPSS 2013**
Since the F statistics value is 13.47 while the F critical value was 3.63 (one tail) and 4.69 (two tail) it is in the region of accepting the alternative hypothesis which states that there are significant differences in the mean income of the beneficiaries before and after the receipt of Zakah even at 5% level of significance, and reject the null hypothesis which states that there is no significant differences, this also indicates that the parameters are adequate.

4.3. Discussion of Results

The study revealed that most of the zakah beneficiaries were males and mostly falls in the category of Poor 30 (46%) of the Zakah recipients. The Officials of the board are mostly within the age bracket of 2-4 years in the service of the board. It is observed that zakah income received by the poor has serious influence on the level of their consumption. Based on the result obtained, it could be observed that consumption was the major expenditure of the zakah beneficiaries, being most of them are Poor, and considering the fact 72% of the income distributed by the board are spent on consumption, it is in the region of accepting the alternative hypothesis which states that major expenditure of the beneficiaries are from the income received, thus, they heavily rely on the board’s collection. The findings of this study goes with the opinion of Metawally (1983) who stated that Zakah disbursement has the ability to increase consumption, since the Marginal propensity to consume (MPC) of the Zakah payer is lower than that of the Zakah recipient. Thus, the purchasing power parity of the poor would be raised. Based on this assertion. The study accept the alternative hypothesis which states that Zakah recipient’s major expenditure was on consumption, and reject the null hypothesis which state that major expenditure of the Zakah recipients is not from the income they received from the Zakah board.

The results in chart 1 and 2 shows that Zakah raises the level to about 70%, as reflected in r(adjusted Coefficient of Correlation) value=70.36 (adjusted ), while 30% of the influence are controlled by other factors not within the variables. Likewise the distribution of Zakah income has reflected about 72% increase in the income of the recipients, all things being equal; it is assumed that the level of recipients’ income is below $75 US dollar per annum, i.e. poverty line, which is in line with the report provided by World Bank Report (2012) put it that the poverty line was $50 per capita per year for those in the village, and $75 for those in the city. It has also been observed that most of the Zakah recipient used the income for consumption purposes, 72% consonance with the opinion of Dimas and Radtya (2010) “that most of the Zakah income receivable are for consumption purposes”. Regarding the issue of effectiveness of the board in terms of administering zakah income, most of the respondents are of the view that it is effective 80 (64%), this reflect they were fair or honest in ensuring that zakah reached the specified zakah recipients. This converges with the opinion of Aliyu and Bawa (2006) who stated that “Islamic state should be active in reducing inequalities in income and wealth by promoting an egalitarian economic and social order.

On the measure of distribution, the opinions were fairly standard 90 (72%) which also reflects the board’s inability to cover its scope, but assign some of its responsibility to the office of the rural district heads who would collect and distribute zakah in the rural areas, this means that in most cases they do delegate local officials to collect and distribute zakah there and then to the beneficiaries in the rural areas. This is in line with the Prophetic tradition in Muwatta, Prophet (SAW) said “that zakah as money taken from the rich and returned to the poor, it is main aim was therefore to distribute the wealth of the community in such a manner that no one is left in abject poverty in that society”. This goes with the opinion of Olajide (1996) that “most of zakah incomes are distributed by local officials who are either poor themselves or are in need of the income, so there is the tendency for minimum distribution of the collected amount”. On the fact that poverty was the source of crimes and low
productivity, most of the opinions of the respondents go with the view of Wiranata (2009) that Poverty is the source of crime and low production. About 115 (95%) of the respondents go with this view.

Regarding the issue of compliance to Islamic call made by Ulama to Zakah Payers, it is indicated that about 80 (64%) respondents agreed that zakah payers fairly complied to the call made by Ulama in the mosques, places of worships, seminars, courtesy visit to their houses.

On the sustainability of the Zakah policy, it has been observed that 80 (64%) respondents agreed that it is fairly sustainable, this also goes with the view of Olajide (1996) that “Zakah policy can be sustainable where Islamic legal system is in full operation, and where there is mixture of both Islam and other non-Islamic legal system then the policy would be fairly sustainable”. Likewise Ahmad (1986) “that zakah will result to economic prosperity whenever it is paid from those who have surplus to the poor, this will improve the poor’ purchasing power which may lead to higher demand on goods”. Most of the problems and challenges faced by the Board were on how to identify the zakah payers, and the amount they were supposed to pay as zakah.

5.0. Summary of Major Findings, Conclusions and Policy Implications

5.1. Summary of Major findings

Based on the responses of the beneficiaries and Zakah Board officials, the following major findings have been established:

i. Majority of the beneficiaries of Zakah by the Zakah board are poor, the Zakah board has contributed in increasing the income of the beneficiaries and thereby reduced poverty.

ii. There is a difference in the income received by the respondent whereby the distribution of income by the board has provided a source of income to the recipients.

iii. Majority of the income received by the beneficiaries is used for consumption.

iv. That most of the measures used for zakah collection and distribution are fairly effective.

v. That poverty is the major source of crime and low productivity.

vi. That zakah policy is fairly sustainable based on the present trend; therefore more effort is required to make it sustainable.

5.2 Conclusion

Based on the major findings of this study the following conclusion is drawn:

Considering the effort made by the Kebbi State Zakah Board for the past 5 years, Zakah has been able to reduce the menace of poverty and its vicious movement through its equal distributive measure. This has increased the income of the beneficiaries which makes the beneficiaries increase their consumption basket, which increase aggregate demand, stimulate investment for national development.

5.3. Policy implications

This study offers the following recommendations based on its findings:

- That Government, particularly in the states where there is a reasonable population of Muslims, needs to focused their attention on establishing policy for the collection and equitable distribution of zakah as another source of reducing poverty, unemployment, and crime in our society for national development either making Zakah payments as a law or as a policy to reduce poverty and inequality in income distribution.
• The need for Islamic scholars to wake up and preach for paying out Zakah to the board as and when due cannot be over emphasized.
• There is the need for the Board to re-strategize its activities by going on to the core rural areas to enlighten them on the importance attached to the board in the collection and distribution of zakah, this would help in increasing the volume of zakah this can be done by collaborating with Islamic bodies such as Muslim Doctors Association, (MDA), (ISMA), FITYANUL ISLAM, JIBWIS and places of worship such as Mosques.
• Corporate organizations need to re-invigorate their activities by imbibing the fear of Allah and pay their Zakah shares from their profit as and when due to the board. This will strengthen the activities of the board and even the policy.
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FACTORS INFLUENCING ENTREPRENUERS INTENTION TO PAY ZAKAT: EVIDENCE FROM KANO NIGERIA. A CONCEPTUAL FRAME WORK

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Abstract
Entrepreneurs contribute immensely to the development of many countries. Whether the country is developed, developing or underdeveloped, entrepreneurs played significant role in employment provision and contribution to Gross Domestic Product. Despite the contribution of Small and Medium Enterprises to development of many countries, poverty in developing and underdeveloped countries is at the high level. Therefore, the main objective of this study is suggest a model that will address factors influencing entrepreneur’s intention to pay zakat in Kano Nigeria. The important of zakat for poverty reduction in Islam cannot be quantify. Zakat refers to the determined portion of wealth recommended by Allah SWT for distribution among the deserving classes of those permitted to receive it. However, zakat collection in Kano Nigeria is still at low level. The paper proposes a model which if validated empirically will be used for policymaking by Kano state Zakat and Hubsi commission, Government, Zakat payers among others. Understanding factors that will influence intention to pay zakat might be an important contribution to knowledge.

1.0 INTRODUCTION
Over the years, entrepreneurs contribute immensely to the development of many nation’s economy. Yauri and Koko (2008) argued that Small and Medium Enterprises (SMEs) play an important role in economic development and growth. Similarly, Gulumser, Nijkamp, Baycan-Levent, and Brons (2008) confirmed that SMEs are the key drivers of economic growth, development as well as a major contributors of Gross Domestic Product (GDP) of most nations. Adamu and Ibrahim (2011) assert that SMEs are the biggest contributors to export and provide economic activities.

On average, in lower income countries, SMEs contributes 70% to employment and 60% to GDP. In middle income countries (developing countries), SME’s contribution stand at 95% to employment and 70% to GDP. SMEs contributes 65% and 55% to employment and GDP in developed economic (high income countries). For example, in India, SMEs contribute 31% to employment and 94% total number of industrial establishment (Small and Medium Enterprises Development Agency of Nigeria [SMEDAN], 2012). In Ghana, SMEs contribute 70% to GDP and 85% to employment (SMEDAN, 2012). Ndumanya, (2013) confirmed that SMEs contribute 61% to employment and from 52% to 57% to GDP in South Africa. In Nigeria SMEs contribute 25% and 46.54% to employment and GDP (SMEDAN, 2012; Ndumanya). Hence, irrespective of the nature of the countries’ economy, SMEs
contributes immensely to, regional development, innovation, and social unity, which lead to significant contribution to employment and GDP (Bouri et al., 2011).

However, looking at the above contribution of SMEs to economic development of many nation’s Nigeria inclusive, the payment of Zakat is low in Kano Nigeria. As at 2013, only 39 paid their zakat to zakat commission (Kano State Zakat and Hubsi Commission [KSZHC, 2014]). In Nigeria, Kano has the second highest number of SMEs after Lagos. Its position as the second largest makes it’s among the state with highest number of those that are capable of paying zakat. However, the payment of zakat to Zakat institution is still not encouraging. In 2013, the total zakat collected was just N12500000, in 2012 the amount collected was N6876000. This amount is insignificant compare to about nine million zakat collectors (Asnaf) (KSZHC, 2014). This statistic shows that there are still many who refuse to pay zakat to the zakat institution in Kano Nigeria (KSZHC, 2014). For instances, if the amount collected in 2013 should be distributed to nine million asnaf, each asnaf will have less than N2. In 2012, the amount to be shared among nine million asnaf is less than N1.

In Islam, the aims of Zakat is to reduce poverty among Muslim Ummah. How can N2 or N1 reduce poverty among people with the present economic condition? A study on factors that influence entrepreneur’s intention to pay zakat is necessary looking at the poverty level in the country. In recent years, National Bureau of statistics asserts that poverty level in Nigeria is on increase. Again, World Bank president Jim Young Kim (2014) confirmed that many people in Nigerians are living below poverty line (Vanguard Newspaper, 11/04/2014). Similarly, Wali (2013) also argued that about a lot of people are relatively poor. It is important to know that the problem of poverty cut across most African.

2.0 LITERATURE REVIEW
2.1 Definition and Conceptualizations of zakat.
Islam built on five pillars, saying and accepting that Allah SWT is one and Prophet Muhammad (peace be upon him) is the messenger of Allah, five daily prayers are second, zakat comes third as per as Islam is concern. It is important to understand; zakat is an important pillar of Islam, and hence, it aims to reduce poverty among Muslim worldwide. Different researchers defined zakat literally, linguistically, theologically and legally.

The term zakat has three different connotations; linguistically, theologically and literally. Linguistically, zakat means cleansing or purification of something from dirt or filth. Theologically, it means spiritual purification resulting from giving of zakat. Literal meaning of Zakah is growth and increase as well as purity (Siddiqi, 1968 & Zayas, 2003). On the other hand, Qardhawi (2000) defines zakah as to grow and to increase. When zakat relates to a person, it means to improve, to become better.

2.2 Intention to pay Zakat
Intention is an important element for accepting or rejecting a particular behavior. Previous researches (Fishbein and Ajzen 1975; Ajzen and Fishbein, 1980; Ajzen and Madden 1986; Ajzen 1991; Ajzen 2002; Ajzen 2005) are of the view that predictor of behavior is closely related to intention. Similarly, in theory of reasoned action as initiated by Ajzen and Fishbein intention assumed to capture motivational factors that influence the behavior.

2.3 Perceived Board Capital and Intention to pay Zakat
Murtala et al. (2011) reveals that the perception of board capital has direct positive relationship with zakat payer’s trust. They further said, perception of the board legitimacy management positively related to perception of the board capital. Certo, Daily and Dalton (2001) conclude that reputation of individuals on the board of a new company significantly
affect investor’s willingness to pay a premium of initial public offer. This study expected that perceived board capital will influence intention to pay zakat. Thus, below proposition is developed.

Proposition 1: Perceived board capital significantly and positively influence intention to pay zakat in Kano Nigeria.

2.4 Quality of Zakat Distribution and Intention to Pay Zakat

Nor Azmi (2006) posited that lack of transparency and inefficiency of *zakat* distributions lead to low confidence in zakat institutions. (Cited in Sanep et al., 2006). Mohamed Dahan (1998) see poor management of zakat distribution as the major factor that leads to a bad image of zakat institutions, and this in turn affects the zakat collection levels. Similarly, previous researches showed that lack of efficiency in zakat distribution causes dissatisfaction with the zakat institutions. (Hairunnizam et al. 2005; Sanep et al. 2006; McKerchar and Hansford 2010) reveal in their findings inefficiency of zakat institutions contribute immensely toward dissatisfaction with zakat institutions. Therefore, this study expected that quality of zakat distribution will influence intention to pay zakat in Kano Nigeria. Thus, the next proposition is developed as shown below.

Proposition 2: Quality of zakat distribution significantly and positively influence intention to pay zakat in Kano Nigeria.

2.4 Underpinning theory

2.4.1 Theory of Reason Action

Fishbein and Ajzen (1975; Ajzen and Fishbein, 1980) proposes that behavior results from the formation of specific intentions to behave. According to TRA model, two major factors determine behavioral intentions namely; the person’s attitude toward the behavior and subjective norms. Similarly, Lee and Lee (2011) in their study factors influencing the intention to watch online video advertising opines that the attitude and subjective norms are the important factors that influence an individual toward complying to watch online video. According to them, theory of reason action is capable of providing a solution to researchers to predict the factors that influence consumer intention to watch online.

According to the theory, attitudes are a function of beliefs. In general, a person who believes that performing a given behavior will lead to positive outcomes will hold a favorable attitude toward performing the behavior. Similarly, a person who believes that performing a given behavior will lead to negative outcomes will hold an unfavorable attitude towards performing the behavior. Thus, attitude toward the behavior is a function of both the beliefs that the behavior leads to certain outcomes and by the person’s evaluation of these outcomes.

![Theory of Reasoned Action](Figure 1)

*Figure 1 Theory of Reasoned Action (Fishbein & Ajzen, 1975, p.288)*
3.0 PROPOSED FRAMEWORK

Review of literature suggest that the relationship between perception of board capital and board legitimacy management is positive and significant (Murtala et al. 2012). Similarly, Abdul Wahab and Abdul Rahman (2011) confirmed that the appropriate selection of board capital is a principal factor for determining efficiency of zakat institutions. Murala et al (2008) concludes that perceived board capital is a special feature a zakat payer want to see in board of zakat (Zakat committee), such as fairness, effectiveness and competency.

Furthermore, it is also indicated in previous studies that quality of zakat distribution influence intention of individual zakat payer to have positive intention toward zakat payment. Nor Azmi (2006) is of the view that inefficiency in zakat distribution lead to serious problem of dissatisfaction with zakat institution. Dahan (1998) confirmed that bad image of zakat institution is associated with poor distribution pattern of zakat institutions. Similarly, Hairunizam et la (2005) found that quality of zakat distribution influence compliance to zakat payment.

Based on the above argument, this study proposed two major proposition which is expected to influence zakat payment in Kano Nigeria. This study proposed that perceived board capital will influence intention to pay zakat. Again, the study also proposed quality of zakat distribution will influence intention to pay zakat in Kano Nigeria. Thus, below framework is proposed.

![Figure 2: Perceived board capital, Quality of zakat distribution and intention to pay zakat.](image)

3.1 Instrumentation

The study will adapt most of its items from previous research. Intention to pay Zakat will be measure using five items used by Saad (2010); perceived board capital will be measure using six items from Murtala et al (2011) and quality of zakat distribution will be measure using five items from Alabede (2012). The study will use Five Likert scale five point (strongly agree), four point (agree), three point (neither agree nor disagree), two point (disagree) and one point (strongly disagree). IPZ and QZD has a minimum of five points (5 item X 1 point) and a maximum of twenty-five points (5 items X 5 points). PBC has a minimum of five points (5 item X 1 point) and a maximum of thirty points (6 items X 5 points).

3.2 Analytical Procedures

This study will use a series of analytical procedure which involved three stages namely data screening process and testing in order to assess the normality of the data due sensitivity of Structural Equation Modelling (SEM). Hair et al., (2010) argued that assessing multivariate normality of the data is importance because its ensure appropriateness of the data for statistical analysis. The next stage is determination of exploratory factor analysis to ensure underlying structure of the study variables (Hair et al., 2010). Finally, the study will use SEM to analyze the constructs that have relationship with the intention to pay zakat. All the variables that meet this
analyses will be applied in structural model analysis to determine the relationship between endogenous variable and exogenous variable in this study.
4.0 Conclusion

The present study, which is based on the ongoing work, present the factors influencing intention to pay zakat looking at perceived board capital, quality of zakat distribution as important predictors. If this proposed framework is validated empirically it might be used for policy decision making by Kano state Zakat and Hubsi commission and government. Also zakat payers might find it useful for their future decisions. Methodologically to the little knowledge of the researcher, this framework if new in zakat environment.

4.1 Limitation and Suggestion for Further Research

The present study should be interpreted in view of the research’s limitations. Firstly, the study was conducted in Kano situated in the northern part of Nigeria. However, the zakat institution in Nigeria and all over the world share similar characteristics, such as the number of *asnaf, nisab*, asset type and *haul*. This framework is limited to entrepreneur’s income in Kano Nigeria, further studies should concentrate on zakat on employment income and other types of income in Nigeria.
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INSECURITY: A THREAT TO NATIONAL DEVELOPMENT IN NIGERIA.

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Abstract
The main thrust of this paper is to examine the issue of insecurity in Nigeria and the impending danger it has on national development of any country. The spate of insecurity and its after results in Nigeria leaves one with a cause to be sad. This trend has threatened lives and properties, hinders business activities and discourages local and foreign investors, all of which stifles and retards Nigeria’s economic development. Also, the rising wave of insecurity has not abated but has assumed a dangerous dimension which is threatening the corporate existence of the country as one geographical entity. The paper after coming to terms with the problems highlighted above adopts the descriptive and historical methods which relied on secondary sources of data. The objective of the paper is to examine the devastating threat insecurity throws at our nation and the resultant effects it has and to also suggest workable solutions to avert the ugly repercussions on our dear nation. In the light of the above, the paper recommends that government must deal with issues capable of igniting the fire of insecurity by accelerating the pace of economic development through creating an economy with relevant social, economic and physical infrastructure to engage unemployed youth, support business and industrial growth, government must be proactive in dealing with security issues and threats, through modern methods of intelligence gathering, and sharing among security personnel, and deploying advanced technology in managing security challenges.
Keywords: Insecurity in Nigeria, National Development

Introduction:
One of the problems facing most third world, developing and or underdeveloped countries including Nigeria today is insecurity. In fact, Nigeria just like any developing country has common characteristics such as poverty, unemployment, lack of infrastructure and social vices. The Nigerian socio-political and economic environment over the years has
been shattered with a series of widespread twin of crime and violent activities. This to a large extent affects development. In Nigeria for example, this problem has become endemic such that the entire fabric of the society is affected. Past administrations be it civilian or military had in the time past, put in place machineries to curb and or curtail this menace but no avail. Meaning, government on its constitutional responsibility has failed to provide a secured and safe environment for lives, properties and the conduct of business and economic activities. This has brought a high level of insecurity which has worsened the crime rate and terrorism in different parts of the country, leaving ugly consequences for the nation’s economy and its growth. Again, awful performance of successive administrations in Nigeria in addressing the challenges of poverty, unemployment and inequitable distribution of wealth among ethnic nationalities ultimately resulted to anger, agitation and violent crimes against the Nigerian state by some individuals and groups (Daniel, 2015).

Crimes like; militancy, corruption, kidnapping, bombing, arm robbery, destruction of government properties have again dealt mercilessly with the country’ economic development effort (World bank 1994). The activities of various militia groups consequently resulted in low income for government from oil revenue, moderating the gross domestic product growth rate, low participation of local and foreign investors in economic development and insecurity of lives and properties of the citizens (David, 2009).

You will recall that, a couple of years ago, there has been a dynamic dimension and rapid increase in sophistication of insecurity in Nigeria. Insecurity at one time in the past has been one of the lowest concern in the hierarchy of Nigeria’s social problem but has now assumed an alarming proportion and taken the lead in the array of Nigerian social problem.

The frequent occurrence of bomb explosions, orchestrated by the acclaimed religious extremist in the northern part of the country, has a worrisome dimension. According to security information released by crime guard, a security monitoring group, between March and December 2012, there were a total of 153 successful explosions in the country which claimed several lives.

Thus, the inability of security agencies to address the country’s security challenges during this inauspicious periods raised yet another critical question on the preparedness of Nigeria to attained desired political, social and economic height again. It further poses serious threats to the unity and corporate existence of Nigeria as a sovereign state. So, basically, the deteriorating security situation in the country has pose developmental challenges which spells serious threat to the Nigeria’s national development.

**Statement of the problems**

Nigeria just like any other country is made up of different individuals, groups, states, local, government, religion and regions. These differences can be noticed in the ways of operations and aspirations of the diversity which when encroached upon by another, bring conflict which result to insecurity. Domination, suppression, or injustice mated against any one of these groups by another results to clash which at times threatens peace and security of the nation. Nigeria, the most populous nation in Africa, a nation with a population of over 170 million and with over 250 ethnic groups has had a series of clashes. Even at the level of interaction between individuals from different backgrounds there is bound to be misunderstanding as one may not be used to the practices of the other (Gillian, 2014).

The country today is overwhelmed with crises of different sort which have negative consequences on the national development. Nigerians were anxiously concerned on how the federal government can tackle the corrosive and caustic corruption, education, agriculture and power failure, but the recurring spate of hapless killings in the Northern parts of Nigeria, kidnapping and pipelines vandalisation in the south, Fulani massacre in middle belt, the Biafra activities in the east etc has diverted the minds of the federal government from...
providing the needed leadership to the people and focusing on how to deal with this insecurity bedeviling the country. Government is meant to protect her citizens and property but in Nigeria the reverse is now the case. So many people had been innocently killed while property worth billions of naira destroyed for no just cause and the federal government has abysmally failed to bring the unsympathetic committers to book. Bringing this to the national outlook; when over 250 groups of people are brought together, there is bound to be misunderstanding. Therefore, this paper will highlight the effects of the insecurity in Nigeria and suggest possible solutions.

Objectives of the Study

The objective of the paper is to assess Insecurity which has been a threat to National Development in Nigeria. Other objectives include;
i. To examine some insecurity cases and their effects on the economy
ii. To identify causes of insecurity in the nation
iii. To proffer ways to reduce cases of conflicts that could lead to insecurity

Methodology

The study adopts historical and descriptive method. The secondary sources of data gotten from textbooks, journals, reports and other documents were used for the research.

Discussions:

The concept of Insecurity

The term Insecurity has different meanings as suggested by different scholars: while it could mean absence of safety; being in fear or bondage, danger; hazard; uncertainty; lack of protection, and lack of safety.

In the words of Beland (2005) insecurity is a state of fear or anxiety due to absence or lack of protection. Achumba (2013) defines insecurity from two perspectives. Firstly, insecurity is the state of being open or subject to danger or threat of danger, where danger is the condition of being at risk or vulnerable to harm or injury. Secondly insecurity is the state of being exposed to risk or anxiety, where anxiety is a vague unpleasant emotion that is experienced in anticipation of some misfortune (Leicher & Keri,2011). These definitions of insecurity underscore a major point that those affected by insecurity are not only uncertain or unaware of what would happen but they are also vulnerable to the threats and dangers when they occur.

As far as this paper is concerned, insecurity is seen as a breach of peace and security, by different factors which are capable of contributing to recurring conflicts, leading to wanton destruction of lives and properties and also hampering the growth of the economy.

According to Achumba et al. (2013) more than 1024 people have lost their lives from 2009 to 2012, and Nigeria is still witnessing series of insecurity ranging from so-called Niger Delta crisis, militancy in the southern part of the country, bombings and killings by the extremist Islamic sect, Boko Haram majorly in some parts of the North east, North Central, the carnage between ethnic Birom and the Hausa/Fulani in Jos, clashes between farmers and the cattle herdsmen found in the North central states, cases of kidnapping found in all parts of the country, the political violence that followed immediately after the 2011 Elections mostly in the northern part of the country, have further exerçabated the insecure state of the country. And all these have always resulted to the death of lives, destruction of properties and scared away investors to the detriment of the national development.

What the current trend of violence is imprinting on the psyche of Nigerians is that, the government security apparatus is incapable of guaranteeing the safety and security of its
people. This would, therefore, impact on the general human security of the people as the situation promotes fear, while at the same time limiting the peoples' ability to develop economically. At the same time, the state's capacity to attract investors becomes limited as a result of the insecurity (Canice, 2011). The table below shows how wide the effect of the damage has covered and the extent to which that can discourage economic activities in the country.

**Attacks by Boko Haram Sect in Nigeria from 2009 to 2012**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Date of Attack</th>
<th>State</th>
<th>Location of Attack</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>July 27, 2009</td>
<td>Yobe</td>
<td>Attack on Potiskum, Yobe State Divisional Headquarters</td>
<td>4 people killed</td>
</tr>
<tr>
<td>2</td>
<td>March 13, 2018</td>
<td>Plateau</td>
<td>Another sect operation in the northern part of Jos, Plateau State</td>
<td>300 people killed</td>
</tr>
<tr>
<td>3</td>
<td>Oct. 1 2010</td>
<td>Abuja</td>
<td>Explosions near the Eagle Square, Abuja.</td>
<td>12 people killed and many injured</td>
</tr>
<tr>
<td>5</td>
<td>Dec. 31, 2010</td>
<td>Abuja</td>
<td>Explosions in Mogadishu Mammy Market, Abuja.</td>
<td>10 people killed</td>
</tr>
<tr>
<td>6</td>
<td>Jan. 21, 2011</td>
<td>Borno</td>
<td>Attack on Borno state Governorship candidate of all Nigeria Peoples Party (ANPP), for the 2011 election, Alhaji Modu Gubio.</td>
<td>7 people killed</td>
</tr>
<tr>
<td>7</td>
<td>Mar. 2, 2011</td>
<td>Kaduna</td>
<td>Boko Haram killed policemen attached to the Residence of Mustapha Sandamu, at Rigasa</td>
<td>2 people killed</td>
</tr>
<tr>
<td>9</td>
<td>April 8, 2011</td>
<td>Niger</td>
<td>Bomb at INEC office in Suleja</td>
<td>8 people killed</td>
</tr>
<tr>
<td>10</td>
<td>April 26, 2011</td>
<td>Bauchi</td>
<td>Army Barracks in Bauchi bombed</td>
<td>3 people killed And many injured</td>
</tr>
<tr>
<td>11</td>
<td>May 29, 2011</td>
<td>Abuja Bauchi And Zaria</td>
<td>Multiple bombings in different locations in Northern Nigeria.</td>
<td>13 people killed And 40 injured</td>
</tr>
<tr>
<td>12</td>
<td>June 7, 2011</td>
<td>Borno</td>
<td>Series of bomb blasts occurred in Maiduguri</td>
<td>5 killed and several injured</td>
</tr>
<tr>
<td>14</td>
<td>June 20, 2011</td>
<td>Kaduna</td>
<td>Boko Haram stormed Kankara Police station in Katsina state.</td>
<td>7 policemen killed and 2 security men</td>
</tr>
<tr>
<td>15</td>
<td>July 9, 2011</td>
<td>Borno and Niger</td>
<td>A clash between Boko Haram</td>
<td>35 killed and many</td>
</tr>
<tr>
<td>Date</td>
<td>Location</td>
<td>Event</td>
<td>Casualties</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>------------------</td>
<td>----------------------------------------------------------------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>July 12, 2011</td>
<td>Borno</td>
<td>Boko Haram threw an explosive device on a moving Military patrol vehicle</td>
<td>5 people killed</td>
<td></td>
</tr>
<tr>
<td>July 25, 2011</td>
<td>Maiduguri</td>
<td>Bomb explosion near the palace of traditional ruler in Maiduguri.</td>
<td>8 people killed</td>
<td></td>
</tr>
<tr>
<td>Aug. 26, 2011</td>
<td>Abuja</td>
<td>A suicide Bomber drove into The United Nations building in Abuja</td>
<td>25 people killed and 60 injured</td>
<td></td>
</tr>
<tr>
<td>Nov. 4, 2011</td>
<td>Yobe</td>
<td>Attack by Boko Haram in Damaturu, Yobe state.</td>
<td>150 people killed</td>
<td></td>
</tr>
<tr>
<td>Nov. 27, 2011</td>
<td>Yobe</td>
<td>Attacks in Gendam.</td>
<td>7 people killed</td>
<td></td>
</tr>
<tr>
<td>Dec. 24, 2011</td>
<td>Plateau</td>
<td>Bombings in Jos.</td>
<td>80 people killed</td>
<td></td>
</tr>
<tr>
<td>Dec. 25, 2011</td>
<td>Niger</td>
<td>Christmas Day bombing in Madalla.</td>
<td>50 people killed</td>
<td></td>
</tr>
<tr>
<td>Jan. 6, 2012</td>
<td>Adamawa</td>
<td>Christ Apostolic Church was attacked and Igbo People were also killed in Mubi in the same state</td>
<td>37 people killed</td>
<td></td>
</tr>
<tr>
<td>Jan. 20, 2012</td>
<td>Kano</td>
<td>Multiple attacks in Kano.</td>
<td>150 people killed</td>
<td></td>
</tr>
<tr>
<td>Feb. 7, 2012</td>
<td>Kano</td>
<td>A bomb blast in Kano market and military barracks</td>
<td>5 people killed</td>
<td></td>
</tr>
<tr>
<td>April 8, 2012</td>
<td>Kaduna</td>
<td>Easter Day Church bombing.</td>
<td>38 people killed</td>
<td></td>
</tr>
<tr>
<td>June 17, 2012</td>
<td>Kaduna</td>
<td>Multiple attacks on churches.</td>
<td>12 people killed and 80 injured</td>
<td></td>
</tr>
<tr>
<td>Aug. 7, 2012</td>
<td>Kogi</td>
<td>Deeper Life Church.</td>
<td>19 people killed</td>
<td></td>
</tr>
</tbody>
</table>

Source: *Adapted from Achumba et al. (2013)*
The concept of development

Kuhnen (1987), sees development is process of improving the quality of all human lives with three equally important aspects. These are

1. Raising peoples’ living levels, i.e. incomes and consumption, levels of food, medical services, education through relevant growth processes
2. Creating conditions conducive to the growth of peoples’ self-esteem through the establishment of social, political and economic systems and institutions which promote human dignity and respect
3. Increasing peoples’ freedom to choose by enlarging the range of their choice variables, e.g. varieties of goods and services.

Economic development is the process and policies by which a nation improves the economic, political, and social well-being of its people. Economic development is related to increase in output coupled with improvement in social and political welfare of people within a country (World Bank 1994). Therefore, economic development encompasses both growth and welfare values.

The issue of ideology of development posed a problem to conceptualizing development. Growth theorists argued that development is an outcome of economic growth while other scholars like Rostow (1952), Harrod-Domar (1957) posited that economic development and growth result from structural changes, savings and investment in an economy.

It is the process of empowering people to maximize their potentials, and develop the knowledge capacity to exploit nature to meet daily human needs (Rodney, 1972; Nnoli, 1981; Ake, 2001). The transformation of the society and the emergence of new social and economic organizations are critical indicators of development (Stiglitz cited in Nwanegbo and Odigbo, 2013).

Causes of insecurity:

Nigeria today has been experiencing rise in insecurity as a result to a large extent our inability to do things right. According Imobighe (2008), the factors that can be attributed to insecurity are as follows:

1. Unemployment: According to Adagba et al (2012) unemployment/poverty among Nigerians, especially the youths is a major cause of insecurity and violent crimes in Nigeria. The teeming number of graduates who are being turned out of schools without jobs is alarming. There is an adage that ‘an idle mind is a devil workshop and also ‘a hungry man is an angry man’’, these apply in this case. We have an accumulation of unemployed people and graduates in Nigeria and the jobs are not forthcoming despite the promises by politicians. Some of these unemployed people take to wheeling-dealing while other ones inadvertently go into crimes to survive. So imagine where an average unemployed graduate that spent 4-5 years in the higher institution is constantly intimidated by money-bags that probably never went to a secondary school. Such unemployed graduate may be tempted to kidnap the so-called big-man or any of his relatives extort money from them. Qualified and capable graduates have been denied appointments but ex-convicts, indicted corrupt persons and criminals have been given such appointments even in the Security Agencies. How can we combat insecurity when we don’t have a comprehensive record of those that have committed one offence or the other in the past. A nation where the capable workforces engage in criminal activities just to survive would never develop economically.
New Employment All Sector Q1, 2015 - Q1, 2016 Sector

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td>Formal Jobs</td>
<td>130,941</td>
<td>51,070</td>
</tr>
<tr>
<td>Informal Jobs</td>
<td>332,403</td>
<td>83,903</td>
</tr>
<tr>
<td>Public Sector Job</td>
<td>5,726</td>
<td>6,395</td>
</tr>
<tr>
<td>Total New Jobs</td>
<td>469,070</td>
<td>141,368</td>
</tr>
</tbody>
</table>


New Employment Public Sector - Q4, 2015 - Q1, 2016

<table>
<thead>
<tr>
<th>Period</th>
<th>New Employment Generated</th>
<th>Number of Losses</th>
<th>Net Employment Generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4,2015</td>
<td>5,867</td>
<td>10,155</td>
<td>-4288</td>
</tr>
<tr>
<td>Q1,2016</td>
<td>5,726</td>
<td>8,764</td>
<td>-3038</td>
</tr>
</tbody>
</table>


The tables above show how bad it has gone, with the unemployment getting worst, something positive should be done and must be done very fast.

2. **Imbalanced Development:** This country is blessed with both natural and human resources which must be enjoyed by all citizens regardless from which region one comes from but unfortunately, there is an uneven pace of development in different parts of the country despite these resources. However, Africa’s biggest economy still faces major challenges. Chief among them is the state of its infrastructure. From roads and rail, to irrigation systems and water pipelines, to mobile and broadband networks, and housing and energy, the current supply is desperately inadequate. The effects of that deficit on the macro economy and on the living conditions of Nigerians are stark (Hirschman, 1958).

Areas perceived as the oil rich region have its people looking out for more in terms of development and when this doesn’t happen, they feel cheated and would often want to take the laws into their hands via vandalization of oil pipelines and installations in a bid to claim their right. This endangers and raises insecurity amongst the people. The nations resources should be viewed as owned by all and the government should deliver equal development to all regions of the country. Sad enough, we hear the cry of marginalization from the minority groups, why must such be heard? When we do things right complaints of marginalization would be nib in the board.

3. **Corruption:** Corruption is a big killer of our economy today, money that should have been used developing the economy has been stolen by individual whose conscience is seared, people building mansions worth billions of naira both in the country and abroad, fat account abound in the foreign land, fleet of cars by an individual is the order of the day. The question is, what is the source of their income? In fact, some of
these corrupt people have been celebrated by conferring award to them, chieftaincy titles, chairmen at different fora etc. If the spate of corruption increases as we are witnessing, then the development of the economy is going to be a mere dream that may never come true. All these impropriety breeds financial insecurity which increases poverty and infrastructural deficit because monies meant to better the lives of the people fail to reach them. Another conduit people used in stealing money is the so-called ‘security vote’ to public office holders. No accountability to this money and therefore they inflate the amount in this head just to use it in their selfish and wicked ways. In fact Transparency International the Global Coalition against Corruption, says the Corruption Perception Index 2015 of Nigeria is ranked Number 136 in the world in terms of corruption even with this fierce fight against the act by the present administration.

4. **Weak Judicial System, injustice, nepotism and a culture of impunity:** The Nigeria’s legal system has failed its people. There are who people commit all manner of crimes and get away with them. When justice is said to be meted out, the rich gets mild punishment for stealing or embezzling billions of naira while the poor is sentenced to many years imprisonment for stealing a tuber of yam. There is a widespread notion that justice can be bought or sold in Nigeria depending on one’s bargaining power and contacts in the corridors of power. Some of the alleged masterminds of Boko Haram are said to have been arrested in the past by security agents but promptly released due to intervention of powerful individuals while some of them were jailed for just few months, they come out sooner than later and continue with their nefarious activities. This has indicated that there are sacred cows that are probably bigger than the laws of the land, this only shows how weak and helpless our judicial system is, and what this is suggesting is that, you commit crime and criminalities and go free if only you have someone who can influence the process, this only causes more injuries to the economic fortunes of the country.

5. **Weak Anti-corruption institutions:** The so-called god-fathers, Cabals and power-brokers are known to be stronger than the government or the anti-corruption institutions. They see themselves as untouchables. They boast that nothing will happen and nothing ultimately happens! A good example is the Petrol subsidy fraud masterminds. The government we can say had brokered a deal with them to return some of the money they embezzled. Many a times, the Police, Economic & Financial Crimes Commission (EFCC), Independent Corrupt Practices Commission (ICPC) etc needs some kind of ‘clearance’ from the powers that be before they can do what they are naturally supposed to do especially when a so-called godfather or powerful individual is involved Beland (2005).

6. **Leadership problem:** There is no doubt that Nigeria is endowed with a plethora of unpatriotic, unscrupulous and greedy leaders. We have since past those days when leaders subordinate their individual interest to the interest of the country. Most political leaders are more concerned about the monetary value they stand to get from the posts they hold and have little or no interest in developing the country, they don’t have anything to lose, these were same people who had everything done to them by the government free when they were coming up, free education with special treatment and they only way they can pay back is by embezzling public funds to prove a point by gaining popularity with virtually no consequence mated on the culprit even when they are caught. Leadership in Nigeria is a do-or-die affair, it is not about competition of ideas or rendering selfless service as is the case in most Western Countries, best brains that can turn the fortune of this country around have been strangulated to
death. A leadership position in Nigeria is seen as a lifetime opportunity for one to enrich himself and exonerate the next twenty generations of his family from poverty.

7. The over-concentration of Political Power at the centre or federal government is not helping matter at all. A situation where the government at the center decides on issues that are for the federating units is not too good. A typical example is the community policing which would have helped reduced the incident of insecurity in the states and local government areas. Sometimes before the government at the center could rise to the occasion the harm has been done, but if the tier of the government that is near to the situation is given the free hand, the crisis may not escalate and may be quelled. Akin to that, the local government autonomy which has been opposed by some state governor is retarding development. It’s high time we redefined and re-negotiate the terms and conditions of our existence perhaps through a National Conference or constitutional amendment with every effort to implement the recommendations.

Effect of insecurity on national development

Scholars have identified strong links between security and development since the cold war ended (Nwanegbo and Odigbo, 2013; Chandler, 2007). They argued that development cannot be achieved in any nation where there are conflicts, crisis and war, corruption, bad leadership, weak judicial institutions etc. There is a consensus in the literature that security and development are two different and inseparable concepts that affect each other, and this has naturally triggered debates on security-development nexus (Chandler, 2007; Stan 2004).

Insecurity in Nigeria has retarded development in Nigeria in various ways. According to Taekyoon 2009 some of the factors can include:

1. Criminal activities individually and collectively create insecurity and breach of the peace that are likely to or indeed affect legitimate social and economic activities in the country. These problems also have a damaging consequences of giving the signal to the rest of the international community that Nigeria is not a safe and secure place and as such not suitable for economic investment and activities. This is particularly important in view of the efforts being made to create the desired atmosphere to attract foreign investment.

2. Nigeria food security is threatened by the destructive activities of the herdsmen who have nowadays tilted their man slaughter to the rural farmers. These farmers can no longer go to the farms because of fear of being killed by these elements. This scenario has cast a bleak future to the survival of agricultural sector and particularly food security.

3. Insecurity has heightens citizenship question which encourages hostility between “indigenes” and “settlers”. This has further brought division among Nigerians. You discover that the Fulani man cannot claim ownership of a piece of land in Lagos state, it will be said that he is not an indigene of Lagos state, once you are not an indigene of a certain place, you cannot be given chieftaincy title, you cannot be employed into the civil service of such state etc and that encourages disunity, conflict, creates general atmosphere of mistrust, fear, anxiety and frenzy.

4. Insecurity has brought dehumanization of women, children, and men especially in conflict situations. Women have become have become subject of rape, children have been displaced from their parents, thereby suffering from mal-nutrition. In general, people who can contribute their quota to the development of the economy are killed or short-lived.

5. Insecurity has brought about government diverted attention from its developmental stride to attend to the situation. Where there are crises, the dividend of democracy promised to the people will be overtaken by the crisis, all developmental activities are
stopped; in fact, government spending and attention is beamed at the crisis situation thereby affecting the economy.

6. Unemployment and underemployment rate, added to other forms of social insecurity that force many jobless graduates of the nation’s tertiary institutions to acquire motorcycles, popularly known as Okada, mostly with secured loans. This they used for commercial purposes as a means of survival. Unfortunately, massive embrace of commercial motorcycle business by Nigerian youths did a great harm to technical skills acquisition, which is a critical component of economic empowerment and growth. A high number of the Okada riders who were once vulcanizes, motor mechanics, electronic technicians, battery chargers, brick layers, hair stylists, cobbler, traders and even apprentices, abandoned these critical vocations for Okada business in their quest for quick money while other trainees and potential trainees neglected the important Small and Medium Scale Enterprise sector. Not only have that, a lot of them being killed as a result of accident. And the implication is that, potential industrialist, employers of labour, and entrepreneurs etc have gone. The table below shows the number of death recorded via motorcycle.

### Motorcyclist deaths as a result of crashes

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NO.OF DEATH</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>4,324</td>
<td>13</td>
</tr>
<tr>
<td>2011</td>
<td>4,403</td>
<td>14</td>
</tr>
<tr>
<td>2012</td>
<td>4,695</td>
<td>14</td>
</tr>
<tr>
<td>2013</td>
<td>4,402</td>
<td>13</td>
</tr>
<tr>
<td>2014</td>
<td>4,295</td>
<td>13</td>
</tr>
</tbody>
</table>


### Solution to the insecurity

According to Don Okereke, Security Analyst & Consultant in a security chat in 2012 uses his security expertise to advocate for the following:

1. Nigeria must start using a pragmatic approach in all its things. We must learn to tackle the source of our problems or causative agent rather than treating the symptom of the disease. Currently it will seem we are building on sand and not on a solid foundation because many of those issues that led to the Nigerian Civil war are still prevalent more than fifty years after the war ended. The unity of this country is not negotiable; we must remain as one indivisible entity if we must succeed. Splitting the country as suggested by some quarter is not the solution to our problem; we cannot do without crisis but does not mean we should split. Even in a nuclear family, there are bound to be disagreements, do we now split the family because of such quarrels.

There is no doubt that Nigeria has come to stay but with more than 400 ethnic groups, we need a system of government that gives, if not all, then majority of our citizens a sense of belonging.

2. Another important step we must take to curtail insecurity is for us to embrace a Political system of government that gives more power to the federating units rather than concentrating so much power at the centre.

3. To eradicate or curtail insecurity, we actually need to strengthen our judicial system by ensuring that the judges appointed leave above board and who are free from
corrupt tendencies and the love of materialism, who can dispensed justice based on its merit no matter who is involved. Measures must also be put in place to ensure quick dispensation of justice. In Nigeria, people commit an offence that last for more than five years with the culprit being jailed for more than five years awaiting trial.

4. Nepotism and a culture of impunity are factors that kill economic development and must also be eschewed from our national psyche and life. Every Nigerian is equally important and must be care for, Nigeria must be a classless nation and not a country where there are two sets of rules; one for the rich and another for the poor. Nigerians must not be made to suffer in the midst of plenty. This will go a long way to reduce the crimes perpetrated by the citizens.

5. Unemployment must be seriously tackled and curtailed. The private sector must be encourage and supported to create the much needed jobs. Constant electricity supply will no doubt boost employment and increase productivity. The youth need to be engaged thereby taking away their attention from all crimes and criminalities.

6. Also the issue of weak anti-corruption institutions like EFCC, ICPC must be strengthen by making them truly Independent. There must not be sacred cows, or the untouchables, the minister of justice and attorney general of the federation must allow justice to flow naturally without influencing the process. All citizens must be equal before the law. A situation where the Attorney-general of the federation or the minister of justice arbitrarily and unilaterally terminate or discontinue any case instituted by the EFCC and other corrupt agencies should not be seen, heard or practice, cases should be allow to be decided upon based on their merit and not based on sentiments. Because any attempt to short change justice will only breed the unwarranted behavior by the other party.

7. Government must be known to be true government who stand by their words, they must walk the talk or match action with words. The culture of foisting candidates on the electorate during elections must stop. Elections must be free and fair and a system should be put in place that ensures only Patriotic and unscrupulous individuals hold positions of responsibility. The fire brigade approach to solving problems be it security or otherwise must be stopped. More often than not, we wait until the harm is done before we start running helter-skelter. We must embrace an intelligence gathering method. Problems, crises etc must be nipped in the bud before they escalate.

8. Technology has help to reduce the incidents of security challenges to the barest minimum in other climes, surveillance cameras have been installed in strategic locations to view all engage in nefarious activities, the telecommunication companies have been partnered with to help monitor the activities of people, that can applied to Nigeria.

Conclusion

In all, what we need is a good government, no more no less. And a good government is possible in as much as people who are put in positions of authority are allowed and are committed to discharge their duties without fear or favour; are determined to serve with zeal and patriotism; are not ready to sell out to international capital and are ready to stand by the truth and die for it.
**Recommendations**

The paper recommends the following:

1. Increase in unemployment in the nation has continued to increase violence and criminal activities thereby making the country insecure. Undoubtedly, an insecure environment will definitely result in job lose. Government should therefore tackle and arrest youth restiveness by investing on job creation.

2. The government through the justice ministry should check the excesses and discipline any judge found to collaborate with criminals to stall justice dispensation. In the fight against corruption in the public service, the anti-graft agencies have always made with barricade against them in the courts. The courts have been repeatedly blamed for frustrating justice delivery through all manners of injunctions, exparte orders, and in some cases, outright acquittals.

3. Government must be fast and proactive in dealing with security issues and threats. Sometime rumours of security breach are heard but such are not taken with the prompt attention desired until the harm is done, Government must ensure that nothing is left to chance and this is possible through modern methods of intelligence gathering, and intelligence sharing, training, logistics, motivation, and deploying advanced technology in managing security challenges.

4. Insecurity can be tackled if government put more effort to increase the pace of development by evenly creating and distributing infrastructures, provide gainful employment, state of the art medical care, and industrialization etc to regions of the country.

5. There is need for government at the centre to relinquish parts of its power to the federating units or better still hands off some aspect of governance to the state and local government. Issues of community policing will help mitigate or even nip in the board the act of criminality in the society. The issue of the winner takes it all is not helping either, the political space should allow a good portion of offices to other political parties to occupy, that way, the struggles or arm twist that we see before, during and after elections will not be seen again.
References
Gillian C. M. (2014), The Effects Of Cultural Diversity In The Workplace, South Florida College of Arts Science & Technology, USA
Abstract

In Nigeria, the provision and maintenance of rural infrastructure was largely carried out by the government without the consultation of the beneficiary communities. This practice resulted to poor maintenance of infrastructure resources and for most part, absence of community-owned infrastructures. However, the level of infrastructural deficits in Kaduna State has not only contributed to poor living conditions of rural dwellers but has further exacerbated the incidence of poverty. This study, therefore, assessed the impacts of NFDP III on provision of SCIs for poverty reduction. Economic Theory of infrastructure and commons management developed by Frischman in 2005 was used as theoretical guide to the study. The target population of the study consisted of 155 sampled populations drawn from selected FCAs (Likarbu, Kubau and Gazara, Makarfi) and Coordinators/Facilitators of the project. Data for the study was analyzed using mean and standard deviation. Pearson correlation was run to test the Null Hypothesis at 0.05 levels of significance. The study found that beneficiaries were provided with access roads, irrigation and storage facilities as well as marketing infrastructures. The use of these SCIs by the beneficiaries has led to: i) increased food production; ii) increased income; iii) increased welfare, and iv) promoted the extent of food security. Based on this finding, there is the indication that NFDP III has significant impact on poverty reduction. The study therefore, recommends that, both the International funding agencies and the governments of Nigeria should show their continued commitments by designing an action plan that will ensure adequate provision, maintenance and promotion of SCIs for sustainable poverty reduction.

1.1 Introduction

In today’s world, Small-scale Community-owned Infrastructure (SCI) has become one of the dominant strategies for community empowerment and poverty reduction. In agriculture-based communities, development projects are tailored towards the provision of paved and stock routes, bridges and culverts, storage facilities and marketing infrastructures, etc. The rural areas according to National Bureau of Statistics (NBS) (2012), housed over 70% of the Nigeria’s population and most of those who live in extreme poverty, are peasant farmers. In view of the NBS, the rural areas record a higher incidence, depth and severity of poverty due to their dependence on low-productivity agriculture, lack of access to opportunities and poor social and economic infrastructures. Infrastructural developments therefore, can portent significant impact on poverty reduction.
In order to promote the livelihood of the rural poor, the Federal Government of Nigeria and the World Bank designed the Third National *Fadama* Development Project (NFDP III) with a sector goal to reduce poverty by improving the living conditions of the rural poor; contribute to food security and increase access to rural infrastructure (PIM-NFDP III, 2009:1). According to Rural Infrastructure Manual No. 4 (NFDP III, 2009:1), SCI is categorized into two: i). Community-owned Infrastructure (CI) such as low cost irrigation systems; feeder roads and drainage systems, and ii). Other infrastructures support sub-components include: Ventilated Improved Pit (VIP) latrine; water point borehole; cold storage room and cooling sheds at all markets. The interplay of these connectivity infrastructure (access roads, bridges, and culverts, *etc*.) and fixed-point service infrastructure (market facilities, water point borehole, *etc*.) and production-enhancing infrastructure (low cost irrigation and storage facilities e.g. tube wells, watering cans, cold storage room and cooling shed) can portent greater impacts on social and economic wellbeing of the poor.

In Kaduna State, the NFDP III was implemented in all the 23 Local Government Areas (LGAs). The project supported *fadama* communities to construct 67.2km of rural (*fadama* and access) roads and 260 number of market stalls to open up farmlands and to develop marketing infrastructures (KDSFDO, 2014). The Project provides 90% grants whilst the beneficiaries contribute 10% of the investment costs. This study therefore, is to assess the extent to which NFDP III reduced poverty through provision of SCIs in Kubau and Makarfi LGAs, Kaduna State.

### 1.2 Statement of the Problem

For nearly three decades, the agricultural sector of Nigeria suffers infrastructural decay which considerably led to the underperformance of the sector. Correspondingly, International Funds for Agricultural Development’s (IFAD) (2011) report on rural poverty for Nigeria has provided amongst other things that, poverty remains predominantly rural problem and is largely attributed to the poor state of infrastructures.

Prior to the implementation of NFDPs in Nigeria, the provision and maintenance of rural infrastructure was largely carried out by the government without the consultation of the actual beneficiary communities. This practice resulted to poor maintenance of infrastructure resources and for most part, absence of community-owned infrastructures. According to the African Development Fund’s (AfDF) reports, as at year 2000, nearly all the 90,000 km of feeder and access roads constructed in 1980s through State-wide Agricultural Development Projects (ADPs) and Directorate for Food, Roads and Rural Infrastructure (DFRRI) are virtually lost due to lack of community ownership and poor maintenance (AfDF, 2003:3).

Revealing the extent of infrastructural deficits in Kaduna State, Mid-term Reviews (MTRs) and Implementation Completions Reports (ICRs) (NFDPII, 2007; 2010) maintain that, about 60% of rural communities lacked good *fadama* and access roads. Conversely, an estimated 15-20% of the total productions of grains are lost or wasted annually due to inaccessible road networks; poor storage facilities and lack of marketing infrastructures (KDSFDO, 2014). This levels of inadequacy has not only contributed to poor living conditions of rural dwellers but has further exacerbated the incidence of poverty. The concern of this study is; to what extent has NFDP III reduced the incidence of rural poverty? The specific questions are: To what extent has NFDP III provided SCIs to the beneficiaries in Kubau and Makarfi LGAs? How have the beneficiaries used the SCIs to reduce the incidence of rural poverty? And what are the challenges faced by the beneficiaries in the use of the SCIs?
1.3 Objectives of the Study

The main objective of this study is to assess the extent to which NFDP III reduced poverty through provision of SCIs in Kubau and Makarfi LGAs, Kaduna State. Other specific objectives of the study are to:

v. Determine the extent to which NFDP III provides SCIs to the beneficiaries in Kubau and Makarfi LGAs;

vi. Ascertain the use of these SCIs to reduce poverty amongst the beneficiaries, and

vii. Identify the challenges faced by beneficiaries in the use of the SCIs.

1.4 Hypothesis

H₀: There is no significant relationship between the level of provision of Small-scale Community-owned Infrastructure and reduction in the incidence of rural poverty in Kubau and Makarfi LGAs of Kaduna State.

1.5 Scope and Limitations of the Study

The study spans the period of 2009-2013. This time frame covers the entire project life cycle. Kubau and Makarfi LGAs were purposively selected because of their active participation in the project and the high irrigation potentials they possess with dominance in irrigation farming. This study concerns itself with provision of SCIs. These consist of provision of access roads, market and storage facilities and low cost irrigation systems. These specific infrastructure resources (connectivity, fixed-point service and production-enhancing infrastructures) were chosen because of their significant impacts on people's living conditions and poverty reduction.

As Scott, et al. (2006) expressed, every research has its peculiar challenges depending on the specific context within which it is carried out. This study encountered quite a number of challenges. The major ones are: (i) the fist challenge was the difficulty to establish links from State Fadama Development Office in Kaduna to the Local Fadama Desk Offices in Kubau and Makarfi LGAs. This was because many LFDOs were ad-hock staff some of which are not residents of the LGAs coupled with the fact that the implementation of NFDP III ended in December 2013. Except with assistants from SFCO, the researcher could not have been able to get contact with any of the Local Facilitators; (ii) there was also a challenge of meeting with the FCAs and FUG units to administer questionnaires and for appointment to conduct FGDs with target groups, and (iii) there was also the difficulty to cover the ten (10) units to observe sub-projects executed.

1.6 Significance of the Study

This study is timely because of the efforts made by the International funding agencies; the federal and State governments in Nigeria towards pursuing the mandates in the fight against poverty and in addressing the infrastructural decay for rural transformation. The relevance of this study lies in its focus towards attempt to link provision of SCI and poverty reduction. In Kaduna State, attempts to establish the relationship between rural infrastructure and poverty reduction have received far less attention. Except for Porter (2002); Adam and Bevan (2004); Levy (2006); Fakayode, et al. (2008); Adeoye, et al. (2011); Adepoju and Salman (2013)that studied rural infrastructures in Nigeria, there are, to the best of our knowledge, very few studies that integrate such consideration. This study attempted to fill this knowledge gap and contribute to knowledge.
2.1 Literature Review and Theoretical Framework

Development projects as operationally defined by the Project Coordinating Unit (PCU) (2005:3) are Small-scale projects designed to promote increased crop production in the fadama land. They take the forms of Community-owned Infrastructure (CI) which according to Rural Infrastructure Manual No. 4 (NFDP III, 2009:1), consist of low cost irrigation systems; feeder roads and drainage systems, and other infrastructures support sub-components such as Ventilated Improved Pit (VIP) latrine; water point borehole; cold storage room and cooling sheds at all markets. For example, along with road construction, lays improved access to other basic infrastructures. Investments in storage facilities can reduce the risk of food spoilage and other loss, higher gains for agricultural produce which in turn, results to increase in productivity and higher incomes. These cyclical chains, will improve the general wellbeing of rural dwellers.

As expressed by Loewen (2009), poverty when viewed in absolute terms is interpreted to mean lack of resources to needs for survival. Relative poverty, on the other hand is interpreted as lack of resources to achieve a standard of living that allows people to play roles, participate in relationships, and to live a life that is deemed normative of the society to which they belong. However, the Federal Office of Statistics (FOS) (1999:109) was definite in categorizing the causes of poverty in Nigeria into problems of access and endowments such as: Inadequate access to markets for the goods and services that the poor farmers can sell. Therefore, inadequate or lack of infrastructure is closely related to poverty in that availability of infrastructure resources can help people to meet their needs for survival, allow them to relate with others and have a better living conditions.

In World Bank’s (2011) view, impact evaluation is anchored on monitoring of a given programme. Monitoring is defined as a continuous process that tracks what is happening with a programme that is implemented and day-to-day management and decisions. When conducting an impact study, expected results must be succinctly stated; indicators of sustainable increase in income must be selected and indicators of outcome (impact) must be measured. For example, the NFDP III project sought to empower the beneficiary communities through provision of rural infrastructure. We therefore, assessed the impact of the NFDP III project through a range of SCIs being offered by the NFDP III to the beneficiary communities.

Empirical evidences on the effects of investments in infrastructure on rural poverty have demonstrated the following: In Nepal, Jacoby (2000) provides evidence of the effective distributional effect of rural roads, because farmers in remote areas are typically poorer than those in less-isolated areas. Jacoby concludes that road is an asset to any rural setting as it provides the farmers access to their farms, link them with urban centres and lead to changes in their social and economic wellbeing. In Indonesia for example, Kwon’s (2001) study had shown that a 1% increase in road investments is associated with a 0.3% decrease in the incidence of rural poverty. Jalan and Ravallion (2002) find that road density was one of the significant determinants of household-level prospects of escaping poverty in rural China; the study demonstrates that for every 1% increase in the number of kilometers of roads per capita in poor regions in China, household consumption rose up by 0.08%.

In Nigeria, Adeoye, et al. (2011) investigates the impact of rural infrastructure and profitability of farmers under the NFDP II in Oyo State. The study made use of primary data collected from two hundred and sixty-four (264) farmers (beneficiaries and non-beneficiaries) through a multi-stage sampling technique. The result showed that more than halve (59.1%) of the villages that participated in the NFDP II have more infrastructures than non-Fadama villages. Moreover, they were found to be significantly better-off in a number of areas
including agricultural production, and household income. This implies that NFDP II has contributed significantly to the development of infrastructures in Oyo State. Therefore, studies highlighted above, have demonstrated the relationships between provisions of rural infrastructure and poverty reduction.

2.2 Theoretical Framework

The theoretical framework adopted for the study is the Economic Theory of infrastructure and commons management. The theory was developed by Frischman in 2005. Frischman, developed an economic theory of infrastructure that provides a better understanding of societal demand for infrastructural facilities. The term infrastructure, generally conjures up the notion of physical resource systems made by humans for public consumption.

The theory has four core components. These are: Public access to infrastructure; the value of infrastructure when used as input into a wide variety of productive processes; the management of infrastructure resources; and people’s empowerment. Infrastructure resources according to Frischman, constitute an important class of resources on which society should place “a very high value on public access.” In the views of Frischman, infrastructures are fundamental resources that generate value when used as input into a wide range of productive processes. Managing infrastructure resources is done in an openly accessible manner. People are therefore empowered to engage in the production of certain goods that are desirable.

In relation to this study, infrastructure resources such as fadama and access roads, bridges and culverts, water point boreholes, market stall, cooling shed, spillway and distribution canals, etc when adequately provided or significantly promoted will serve as inputs that can generate value in the productive processes (human consumption and industrial activities), stimulate growth in agricultural and industrial sectors as well as improving the living conditions of individuals. In particular, the provision of access roads and market infrastructures are largely public goods which generate positive externalities that benefits society as a whole.

3.1 Methodology

The research design for this study is survey with a mixed strategy of quantitative and qualitative methods. Questionnaire instrument, interview and observation were the major instruments of primary data collection for the study. On the other hand, the secondary data sources for the study were obtained from Appraisal reports, Project Implementation Manuals (PIMs), Mid-term Reports (MTRs) and Implementation Completion Reports (ICRs), Local Development Plans (LDPs) etc.

In order to determine the population of the study, the list of all registered FCAs and FUGs as direct beneficiaries and project staff as Facilitators were obtained from the State Fadama Development Office, Kaduna. Two sets of structured questionnaires were designed for the study. The content of the questionnaire was structured using Likerts’ scale. Respondents were expected to rate, agree or disagree to varying degrees, the intensity and feelings to a given statement. Two scaling methods were used. For example, to share the views of the beneficiaries on impact of the project, we used the first rating scale demonstrated below whilst to assess the effectiveness of project implementation by the project coordinators/facilitators, the second rating scale was used.
The decision rule for accepting or rejecting a statement on respondents’ views was scored at \((5+4+3+2+1= 15/5 = 3.0)\). Therefore, a statement is rejected if the mean score value is below 3.0 and is accepted if otherwise.

Purposive, cluster and stratified sampling method were used there-in, multi-stage sampling technique adopted. The first stage involved purposive selection of two LGAs with high irrigation potentials and dominance in irrigation farming; the second stage involved random selection of two FCAs in the study areas. Ten FUGs, five (5) each were clustered and randomly selected. On the other hand, stratified sampling was applied to for the Fadama Officials based on sub-domain i.e. Local Fadama Desk Officers (LFDOs) and Facilitators.

Table 3.1.2: Target Population of the Study

<table>
<thead>
<tr>
<th>Likarbu Tomatoes Production Cluster Cooperative Union, FCA-Kubau (KDS, 11709) 20 Officials</th>
<th>Gazara Fadama Farmers Cooperative Limited, Makarfi (KDS, 6658) 20 Officials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gimbawa-Zuntu Fadama Farmers Cooperative Society (25 Members)</td>
<td>Anguwan Galadima Fadama Cooperative Society (24 Members)</td>
</tr>
<tr>
<td>Zuntu-Koni Multi-purpose Cooperative Society (15 Members)</td>
<td>Maraban T/Yari FCS Ltd (22 Members)</td>
</tr>
<tr>
<td>Wazabi-Zuntu Nasara Tomatoes Cooperative Society (22 Members)</td>
<td>Anguwan Galadima II WMPCS (22 Members)</td>
</tr>
<tr>
<td>Durumi Fadama Farmers Cooperative Society (18 Members)</td>
<td>Anguwan Wakili WMPCS Ltd (30 Members)</td>
</tr>
<tr>
<td>Zuntu-Central Fadama Farmers Cooperative Society (19 Members)</td>
<td>T/Wada Makarfi-North FSC (38 Members)</td>
</tr>
</tbody>
</table>

| Total | 129 Members | 156 Members |

Source: Researcher’s Survey, 2016

As shown in Table 3.1.2 above, there are 285 project beneficiaries. Likewise, at the State and local level, there are 10 State Desk Officers and 4 Local facilitators (14). Therefore, the parent population of the study was determined to be two hundred and ninety-nine (299). Krejcie and Morgan’s (1970) population and sample’s size Table was used to draw the sample size (see Appendix I). The calculated table provided us with one hundred and sixty-nine (169) sample population.
### Table 3.1.3: Tabular Presentation of Population and Sample Size of the Study

<table>
<thead>
<tr>
<th>Population</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NFDP’s Staff</strong></td>
<td><strong>Project-Beneficiaries (FCAs/FUGs)</strong></td>
</tr>
<tr>
<td>FDOs Kaduna 10</td>
<td>10</td>
</tr>
<tr>
<td>FDOs in Kubau 2</td>
<td>Likarbu FCA 129</td>
</tr>
<tr>
<td>FDOs in Makarfi 2</td>
<td>Gazara FCA 156</td>
</tr>
<tr>
<td>Total 14</td>
<td>285 =299</td>
</tr>
</tbody>
</table>

Source: Researcher’s Survey, 2016

#### 3.2 Data Presentation and Analysis

Data for the study was presented and analyzed with the aid of descriptive statistics such as mean and standard deviation. Pearson Correlation was run through Statistical Packages for Social Sciences (SPSS) to test the veracity of formulated Null hypothesis. The dominant variables operationalize in this study were provision of SCI and poverty reduction as independent and dependent variable components respectively. Reduction in the incidence of poverty amongst the project beneficiaries is dependent on the level of provision and uses of SCIs. The test instruments that guided us in this study contain amongst other things, increased food production; increased welfare; increased income, and community empowerment. These indicators were tested to show evidence whether NFDP III has significantly reduced poverty.

The decision rule for testing the null hypothesis for the study is “accept $H_0$ if the correlation coefficient result is less than 0.05 alpha levels of significance. Conversely, the $H_0$ will be rejected if correlation coefficient is above the preset threshold value (0.05).” However, the rate of returns for the Questionnaire instruments were that whilst 169 Questionnaires were distributed to the target population, 155 were duly filled and returned. Therefore, 155 respondents (92%) are considered adequate for analysis.

#### 3.3.1: Project Beneficiaries’ Views on Extent of Provision of SCIs and Social and Economic Impact of the Project

<table>
<thead>
<tr>
<th>n</th>
<th>Criteria</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
<th>Total</th>
<th>Mean</th>
<th>St Deviation</th>
<th>Decision Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased Food Production: Increased yields; Increased farmlands; Improved seedlings/Breed; Increased food security at community level, etc</td>
<td>165</td>
<td>272</td>
<td>0</td>
<td>44</td>
<td>0</td>
<td>581</td>
<td>4.06</td>
<td>11.89</td>
<td>Agree</td>
<td></td>
</tr>
<tr>
<td>Increased Welfare:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased nutrition; Capacity to acquire personal house; Access to health care; Capacity to send Children to School</td>
<td>105</td>
<td>328</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>633</td>
<td>4.42</td>
<td>13.87</td>
<td>Agree</td>
<td></td>
</tr>
</tbody>
</table>
reduction in rural-urban migration, *etc*

**Increased Income:**
Increased daily expenditure; Ability to save money; Increased income level (40%), acquisition of personal property- cars, motor cycle, bicycle, *etc*

<table>
<thead>
<tr>
<th>Score</th>
<th>VH</th>
<th>H</th>
<th>A</th>
<th>L</th>
<th>VL</th>
<th>Total</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Decision Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>132</td>
<td>0</td>
<td>30</td>
<td>466</td>
<td></td>
<td>8.352</td>
<td>Agree</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Empowerment:**
FCA’s ability to identify owned project; Community’s ability to develop LDPs; Community’s ability to invest in project.

<table>
<thead>
<tr>
<th>Score</th>
<th>VH</th>
<th>H</th>
<th>A</th>
<th>L</th>
<th>VL</th>
<th>Total</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Decision Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>67</td>
<td>122</td>
<td>0</td>
<td>0</td>
<td>189</td>
<td></td>
<td>8.04</td>
<td>Disagree</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Extent of Provision of SCIs:**
Access roads; Tube wells, watering cans; Cold storage room; Water point Borehole; Improved Ventilated Improved Latrine.

<table>
<thead>
<tr>
<th>Score</th>
<th>VH</th>
<th>H</th>
<th>A</th>
<th>L</th>
<th>VL</th>
<th>Total</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Decision Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>135</td>
<td>144</td>
<td>82</td>
<td>480</td>
<td></td>
<td></td>
<td>8.78</td>
<td>Agree</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**N-values: 143.** Source: Field Survey, 2016

Based on the results obtained in Table 3.3.1 above, impact criteria with value number 1, 2, 3 and 4 i.e. increased food production, increased welfare, increased income, and extent of provision of SCIs with mean value of 4.06, 4.42, 3.26, and 3.36 are above our established value of 3.0 for agreeing with the statements. Conversely, impact criteria the item value number 4 i.e. community empowerment with a mean of 1.32 fell below 3.0 suggesting that NFDP III has not significantly empowered the beneficiary communities for the period under study. Overall, the mean for assessing the impacts of the project was 3.284 which show that despite less community empowerment, the provision and uses of SCIs have positive and significant impacts on poverty reduction.

**3.3.2: Views of SFDOs, Kaduna and LFDOs, Kubau and Makarfi LGAs on Effective Implementation of the Project**

<table>
<thead>
<tr>
<th>Questionnaire items</th>
<th>VH</th>
<th>H</th>
<th>A</th>
<th>L</th>
<th>VL</th>
<th>Total</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Decision Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community’s ownership of project</td>
<td>0</td>
<td>16</td>
<td>0</td>
<td>14</td>
<td>1</td>
<td>31</td>
<td>2.58</td>
<td>3.72</td>
<td>Very low</td>
</tr>
<tr>
<td>Community’s increased skills to develop LDPs?</td>
<td>0</td>
<td>16</td>
<td>0</td>
<td>16</td>
<td>0</td>
<td>32</td>
<td>2.67</td>
<td>3.81</td>
<td>Very low</td>
</tr>
<tr>
<td>Management of constructed</td>
<td>0</td>
<td>20</td>
<td>3</td>
<td>12</td>
<td>0</td>
<td>35</td>
<td>2.17</td>
<td>3.52</td>
<td>Very low</td>
</tr>
</tbody>
</table>
Based on Table 3.3.2 above, value of items number 1, 2, and 3 i.e. community’s ownership of project, community’s increased skills to develop LDPs and management of constructed infrastructures with mean values of 2.58, 2.67, and 2.17 are below our established threshold value of 3.00 meaning that these aspects of the project were rated very low. Conversely, items 4 and 5 i.e. level of utilization of SCIs and extent of food security with mean of 3.50 and 4.67 were rated high and very high. Nevertheless, the overall mean for assessing the implementation is 3.11 meaning that it was rated high despite the low level of community participation.

### 3.4 Test of Null Hypothesis

<table>
<thead>
<tr>
<th>Pearson Correlations</th>
<th>Small-scale infrastructure</th>
<th>Poverty reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small-scale infrastructure</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.618</td>
</tr>
<tr>
<td>N</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Poverty reduction</td>
<td>Pearson Correlation</td>
<td>.169</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.618</td>
<td>11</td>
</tr>
<tr>
<td>N</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

Based on the output generated using SPSS for the study, the coefficient result of 0.618 is higher than 0.05 alpha level of significance meaning that, provision of SCI is not only related to poverty reduction but, the two associated variables are statistically significant. Therefore, the Null Hypothesis which says “there is no significant relationship between the level of provision of Small-scale Community-owned Infrastructure and reduction in the incidence of rural poverty in Kubau and Makarfi LGAs of Kaduna State is rejected.” Hence, there is a strong and positive correlation between the level of provision of SCI and reduction in the incidence of rural poverty in the study areas.

### 3.5 Discussion of Results and Findings

The NFDP III was designed to amongst other things, support *fadama* communities to construct access roads, processing, irrigation, storage and marketing infrastructures. Of particular concern to this study is to: determine the extent to which NFDP III provided SCIs to the beneficiary’ communities; ascertain the levels of uses of SCIs to reduce the incidence of rural poverty and identify challenges faced by the beneficiaries in the use of the SCIs.

Results of this study indicate that the project has significantly impacted on the lives of the beneficiaries through increase in food production; increased welfare; increased income levels. Moreover, results show that the level of community’s participation was very low. This manifests in form of inability of FCAs to develop their LDPs and same lacking capacity to
manage constructed infrastructures. However, the extent of provision of SCIs was rated high. For example, results show that beneficiaries were provided with access roads of 3.5km access road in Kamfa-karaba in Kubau LGA and 3km access road in Gazara, Makarfi LGA. The provision of access roads enabled individuals to have better or improved living conditions, easy access to market thereby making people to engage in other off-farm activities. Also provided to the communities were tube wells and watering cans, surface irrigation, and water point boreholes, etc. The respondents also pointed out that the incidence of poverty will ever continue when infrastructural needs are not either provided or promoted.

Beneficiaries were also asked what they think were the improvements achieved so far in their communities with regards to social and economic wellbeing of individuals. As there is increased in food production, the extent of food security will to some extent improved. When this trend is sustained over time, food poverty trend will drastically reduce in the beneficiary communities. We have also observed the state of constructed infrastructure to determine their functionality. Whereas water point boreholes are functional in Kubau LGA, none of this facility was functional in Makarfi LGA. Due to poor maintenance, the 3.5km access road in Kamfa-karaba in Kubau and 3km access road in Gazara, Makarfi were nearly washed by rains. In Kubau and Makarfi LGAs, many of the marketing facilities notably, VIP latrines were in complete state of disrepair. The outcome of our interviews shows that the major challenges faced by the beneficiaries were poor maintenance of established infrastructures, lack of capacity to develop LDPs, and inadequate levels of provision of SCIs and how sub-projects can be sustained in the long run.

3.6 Summary of Findings

Based on the results obtained in this study, the following findings are discernible: Beneficiaries were provided with access roads, irrigation and storage facilities as well as market infrastructures. The uses of these infrastructures led to changes in social and economic wellbeing of the beneficiaries. These changes manifested in: (i) increased food production seen in increased farmlands which promotes the extent of food security; (ii) increased in income levels evidenced in increased daily expenditure; ability to save money; acquisition of personal property; (iii) increased welfare evidenced in increased nutrition; capacity to acquire personal house; access to health care; capacity to send children to school, and reduction in rural-urban migration. Improvements in these welfare indicators are pointers that the incidence of poverty whether from absolute or relative terms, has reduced significantly. These significant changes were attributed to the increase in incomes of the beneficiaries. It was also established in the Periodic Needs Assessment (PNAs) and FGDs that, 75% of the beneficiaries have increased their average incomes by at least 40%. In spite of these, results showed that the levels of provision of SCIs in Kubau and Makarfi LGAs were inadequate and there was low level of beneficiary’s participation in project identification and implementation.

4.1 Conclusion and Recommendations

Based on the findings of this study, there is evidence that provision of SCIs has significant impact on poverty reduction. The social and economic impact of NFDP III depends on the extent of provision and the uses of SCIs. In the light of the above, the following recommendations may be worthy of consideration:

iv. Higher level of beneficiaries’ participation and community ownership should be promoted greatly; this can be achieved when project beneficiaries are empowered
through capacity building; to identify community-owned project, have the capacity to develop LDPs and being able to manage the established SCIs;

v. Sensitization campaign should also be made on effective use and maintenance of Community-owned and marketing infrastructures for greater impacts of the on poverty reduction;

vi. The monitoring and evaluation aspects of the project should focus much more on the value of project sustainability. This will over time, sustains the impacts of the project in the beneficiary communities, and

viii. Both the International funding agencies i.e. International Development Association (IDA) and the African Development Bank (AfDB) and the governments of Nigeria (federal, State and local) should extend their continued commitments by designing an action plan that will significantly promote rural infrastructure for sustainable poverty reduction in Nigeria.
References


### APPENDIX I

**Table for Determining Sample Size from a Given Population**

<table>
<thead>
<tr>
<th>( N )</th>
<th>( S )</th>
<th>( N )</th>
<th>( S )</th>
<th>( N )</th>
<th>( S )</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>10</td>
<td>220</td>
<td>140</td>
<td>1200</td>
<td>291</td>
</tr>
<tr>
<td>15</td>
<td>14</td>
<td>230</td>
<td>144</td>
<td>1300</td>
<td>297</td>
</tr>
<tr>
<td>20</td>
<td>19</td>
<td>240</td>
<td>148</td>
<td>1400</td>
<td>302</td>
</tr>
<tr>
<td>25</td>
<td>24</td>
<td>250</td>
<td>152</td>
<td>1500</td>
<td>306</td>
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<td>30</td>
<td>28</td>
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<td>1600</td>
<td>310</td>
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<td>1700</td>
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<td>2200</td>
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<td>52</td>
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<td>181</td>
<td>2400</td>
<td>331</td>
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<td>65</td>
<td>56</td>
<td>360</td>
<td>186</td>
<td>2600</td>
<td>335</td>
</tr>
<tr>
<td>70</td>
<td>59</td>
<td>380</td>
<td>191</td>
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<td>63</td>
<td>400</td>
<td>196</td>
<td>3000</td>
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<td>9000</td>
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<tr>
<td>210</td>
<td>136</td>
<td>1100</td>
<td>283</td>
<td>10000</td>
<td>384</td>
</tr>
</tbody>
</table>

*Note.* \( N \) is population size. \( S \) is sample size.

*Source: Krejcie & Morgan, 1970*
EXAMINATION OF CORPORATE SOCIAL RESPONSIBILITY PRACTICES BY MICRO AND SMALL ENTERPRISES IN MINNA METROPOLIS

By

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Abstract
Considerably, big businesses have attracted a considerable large volume of models empirical literatures on corporate social responsibility (CSR). However, not very much literatures can be currently easily accessible to enhance general understanding about the engagement of micro, small and medium sized enterprises (MSMEs) in corporate social responsibility (CSR). Even though, societal demand for business participation in fixing social infrastructures confronting the society does not rest only on multinational corporations and other larger domestic businesses but also on medium, small and micro enterprises. This study examines corporate social responsibility (CSR) practices by micro and small enterprises in Minna metropolis of Niger State. The study population is three hundred and eight (308) micro and small enterprises (MSEs), with a sample size of 174 as determined using Araoye (2004) formulae given as \( N = \frac{Z^2 pq}{d^2} \) and used for the study. The analysis of the study is predicated on quantitative approach with the use of a well-structured questionnaire as the instrument for the elicitation of data for scrutiny. From the analysis, findings indicate that proactive measures are required by micro and small enterprises (MSEs) to further appreciate the adoption and practice of corporate social responsibility (CSR) as a fundamental requirement in their specific areas of undertaking. Hence, corporate social responsibility practice is not intended to be effected by only multinational enterprises, but by all businesses regardless of their sizes and scales of operations.

Keywords: Corporate Social Responsibility (CSR), Micro, Small and Medium Enterprises, (MSMEs), Micro and Small Enterprises, (MSEs), Environmental sustainability

1. Introduction
Business is business regardless of whether it is medium, small or micro scale. It should not be doubted that the amount of capital employed and the size of labour engaged would change the expectation of the society from the business; expecting it to act responsibly in a manner that is not only economical but equally ethical and mutually beneficial to the business itself and the society at large. It is widely held that both business and society gain when firms strive holistically to be socially responsible; that is, business organizations gains in in terms of enhanced reputation, higher sales volume, and improved profits while society gains from the socially responsible behaviours in terms of improved infrastructures, employment opportunities, and quality products and services offered by the business.

One of the earliest descriptions of CSR is provided by Bowen (1953) (as cited in Afolabi & Ntukekpo, 2012) where he suggests that it is a business’ social obligation to pursue those policies, to make those decisions, or to follow those lines of action which are desirable...
in terms of the objectives and values of our society. In the like disposition, a coalition of 160 international companies under the auspices of World Business Council for Sustainable Development (WBCSD) established that CSR is the continuing commitment by businesses to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as the local community and society at large.

1.1 Statement of the Problem
Societal demand for business participation in fixing social ills bedevilling the society does not rest only on multinational corporations and other larger domestic businesses but also on MSMEs. Inyang (2013) asserted that the big businesses have attracted a considerable large volume of empirical literatures on CSR. However, very little literature is currently available to enhance our understanding about the engagement of micro, small and medium sized enterprises (MSMEs) in CSR. This study would contribute to this endeavour and set an agenda for further studies.

Consider the scenario of a micro trader who retails sachet water (popularly called ‘pure water’ in Nigeria) and provided a wastebasket where he insists that all empty nylons should be dropped to avoid littering of the environment. More so, the case of a corner shop owner who sells cigarettes and provide a side-bench insisting that smokers should stay by the side to avoid polluting the air for non-smokers. All these constitute acts of CSR. Therefore, considerable research efforts are required to enhance MSMEs-CSR domain.

This study is predicated on the conviction that given the visible number of MSMEs in Minna metropolis of Niger state, their actual commitment to the practice of CSR, particularly, in terms of environmental protection, community development, employees and customers’ welfare, would lessen the incidences of social infrastructure failures. Recall we are all witnesses to the perennial decay of social infrastructures arising from poor maintenance, overstretch and obsolesce. CSR practices expected to be demonstrated can be typically described in what Carroll (1979) portrayed as the pyramid of responsibilities; ranging from economic, legal, ethical and philanthropic or discretionary responsibilities.

Okafor and Oshodin (2012) held that enterprises with good social and environmental records would perform better in the long run than those that do not behave responsibly. This is because customers will like to patronize any business with good social and environmental history more than companies without such records as they will be seen to have identified with the community. This means that since CSR benefits are mutual; it can enhance a company’s image and would equally guarantees quality products and services for the public.

1.2 Objectives of the Study
The major objective of this study is to explore the extent of CSR engagement by MSMEs. Specifically, the study:

i. Examined the attitudes of MSMEs towards CSR; and
ii. Analysed the barriers to the implementation of CSR by the MSMEs

2.0 Conceptual Review and Empirical Framework
2.1 Corporate Social Responsibility
For several obvious reasons, CSR though unique is no longer an unfamiliar concept in both academia and the corporate environments.

However, it is gradually, continually and increasingly attracting the thoughts and interests of researchers. Bowen’s 1953 publication lime-lighted critical discussions of the subject matter of CSR. He described it as the business’ obligation to pursue those policies, to make those decisions or to follow those lines of action that are desirable in terms of the objectives and values of society. Due to Bowen’s earliest pivotal work, scholars, such as
Carroll (1999) and Windsor (2001) credited him as the father of CSR. Subsequent to this earlier efforts, Carroll (1999) stated that a number of scholars have played roles in remodelling the concept; (McGuire in 1963, Jones in 1980, Wartick & Cochran in 1985, Wood in 1991, and Waddock & Graves in 1997). However, the idea of corporate social performance developed by Wood (1991) acknowledges previous CSR dimensions identified by Carroll (1979) i.e. legal, economic, ethical and philanthropic as principles, policies and processes.

Carroll (1999) organised an evolution of a definitional constructs mentioned from 1950s to 1990s representing six decades CSR developments. He construed CSR to involve the conduct of a business so that it is economically profitable, law abiding, ethical and socially supportive. Thus, to be socially responsible means that profitability and obedience to the law are foremost conditions when discussing the firm’s ethics and the extent to which it supports the society in which it exists.

**Micro, Small and Medium Enterprises**

Like CSR, MSMEs is another construct that have generated considerable debates in terms of definition depending on perspective and the economy in context. However, in any case, most definitions were construed putting into consideration turnover, asset value, ownership structure and the number of employees.

The definition of MSMEs also varies in context across countries, industries, organizations, agencies and the academic community. The European Union Standard definition for MSMEs as any business with fewer than 250 employees and a turnover of up to 50 million Euros and a balance sheet of about 43 million Euros. This definition according to Salami (2003) may not be applicable to all countries since MSMEs considered large in one country may not be so in another due to differences in industrial organization at different levels of economic development and differences in economic development in parts of the same country. Prior to 1992, various government agencies in Nigeria such as the Central Bank of Nigeria tended to adopt various definitions to reflect differences in policy focus. However, in 1992, the National Council on Industry streamlined the various definitions in order to remove ambiguities and agreed to revise them every four years. This endeavour was revised in 1996 and subsequently in 2001.

The National Council on Industry (2001) defined Micro Enterprise as an undertaking with a labour size of not more than 10 workers, or total cost of not more than N1.5Million including working capital but excluding the cost of land. It also defined Small Scale Enterprise as an enterprise with a labour size of 11-100 workers or a total cost of not more than N50Million, including working capital but excluding cost of land. In their document, Medium Scale Enterprise as an enterprise with a labour size of between 101-300 workers or total cost of over N50Million but not more than N200Million including working capital but excluding cost of land.

The Central Bank of Nigeria (2004) defines SMEs as any undertaking with an asset base between N5m and N500m and staff strength between 10 and 100 employees. The foregoing therefore shows that MSMEs encompasses a very broad range of enterprises from established traditional family businesses employing over a hundred people to survivalist self-employed people working in informal microenterprises. This study adopts the definition of MSMEs proffered by the National Council on Industry in 2012 as stated earlier.

### 2.3 Evolvement of MSEs-CSR Discourse

The emergence of curiosity among scholars and the research community to engage in MSMEs-CSR discourse have become more topical in recent times as a result of the realization of the aggregate impacts of MSMEs on national economies. Given the importance
of MSMEs for the purposes of economic growth and development and their social and environmental impact, the adoption of socially responsible practices in the context of small business is of significant value (Possenti, 2012). However, much of the available literatures borders more on large establishments with little relevance to MSMEs as different set of mechanisms are in play when MSMEs decide on how responsible they should behave (Fitjar, 2011).

Dincer and Dincer (2006) find that MSMEs executives are generally influenced by personal feelings, friends and religion when making decisions related to MSMEs. Cochius (2006) argues that long-run self-interest is one of the most prevalent reasons to practicing CSR. Business needs to provide a variety of social goods in order to remain profitable in the long run. Princic (2003) finds that the environmental and social responsibilities of MSMEs are significantly and positively related to their financial performance.

### 2.4 Benefits of CSR Implementation to SMEs

Andreasen (1996), Sagawa (2001), Wymer and Samu (2003) all reported increased sales, brand differentiation, enhanced brand image, improved employee recruitment, morale and retention, enhanced government relations, ability to reach new customer segments as gains arising from effective CSR practices. Dzansi (2011) in an article “Social responsibility of small businesses in a typical rural African setting found that community improvement, customer satisfaction, happy workers, employability, sales growth, profit growth, and employee loyalty as some of the potential paybacks small businesses get when they are involved in CSR practices.

A report of the European Commission titled “opportunity and responsibility” (2015) indicates that business benefit of CSR are the same for firms of all sizes. It held that companies stand to gain engaged staff, an enhanced reputation, and lower long-run costs. However, MSEs in particular may be interested in some other benefits. For instance, MSEs with great CSR policies (particularly strong sustainability measures and labour practices) may be more likely to win contracts from larger businesses. Those with strong CSR reputations are poised for success as more and more large companies hold their entire supply chain accountable to certain ethical standards. In general, small businesses may find that investors are partial to companies with great corporate citizenship policies.

MSEs in the same industry are much more likely to cooperate with one another on a CSR initiative. Unlike their larger counterparts who might tend to avoid this kind of cooperation, MSEs are more comfortable working together to solve a community problem. In essence, CSR initiatives by MSEs are often community focused and help to improve the local business climate.

### 2.5 Empirical framework

MSEs are heterogeneous in size, resources, management style and personal relationships (Jenkins, 2004) which make it difficult for them to adopt large firm practices. A key difference between large and small firms is that in small firms, ownership and management are not separated to the same extent as they are in large multinational firms (Spence and Rutherfoord, 2000). Control remains in the hands of the owners, potentially enabling them to make personal choices about the allocation of resources (Spence, 1999).

The relationship with the local authorities is far closer and more direct than that of large business (Longo et al., 2005). Thus, the MSEs are particularly sensitive to the problems surrounding social responsibility: the small entrepreneur ‘experiences’ in person, together with his family and his employees, the territory in which he operates, and shares with them both results and worries. In addition, the acceptance of CSR is largely a factor of the personal
attitudes of the owner/manager (Perez-Sanchez, 2003). This is a theme echoed throughout the MSE and CSR literature.

Akinyomi (2013) examined the practice of CSR by manufacturing companies in Nigeria and employed survey research design to study 15 randomly selected businesses in the food and beverages sector. The findings revealed that the sector does engage in CSR activities and their major areas of focus include Education and Youth Development, Sports, among others. Possenti, (2012) analysed the linkages between CSR and MSEs in Somalia. The research analysis and findings established that MSEs play a key role in shaping the expressions of responsible business activities within small and medium-sized firms in Somalia.

Anthony and Onugu, (2005) investigated corporate social performance of MSEs in Nigeria with a sample of 300 randomly selected MSEs spread across all the states of federation including Abuja covering Services, Manufacturing, Processing, Oil & Gas, and Educational. and the findings indicates that MSEs in Nigeria have not demonstrated sufficient will and commitment to implementing CSR policies. Ramasobana and Fatoki (2014) examined the business social responsibility of micro enterprises in Limpopo Province, South Africa using Univariate statistics. The results indicated that MSEs have positive attitude towards CSR. In addition, it indicated that majority of the MSEs are weak in community and environmental sustainability.

3. Methodology
This study surveys CSR practices by MSEs in Minna metropolis. The study population is 308 MSEs as obtained from the Niger State Micro, Small, and Medium Enterprises Agency in Minna (2016). A sample size of 174 was determined using Araoye (2004) formula given as 

\[ N = \frac{Z^2pq}{d^2} \]

The instrument used for the collection of data and elicitation of responses in line with the objectives of the study is self-administered questionnaire. The study adapted (with modification) questionnaire scale developed by Abdul and Ibrahim (2002). The five-point Likert Scale with a scoring format ‘1’–‘5’ ranging from ‘Strongly Disagree’ to ‘Strongly Agree’ respectively was used to measure the attitudes toward CSR. Questions on the practice of CSR and the barriers to the adoption of CSR by micro and small enterprises were adapted from previous empirical studies conducted by the Directorate General for Enterprise, Institution of the European Commission.

4. Results and Discussion
4.1 Demography of the respondents
The demographic data about respondents collected bothered on gender, age, marital status, and education level. Although sampled population is one hundred and seventy four (174), the valid responses analysed upon the administration of questionnaire is one hundred and thirty eight (138) equivalent to 78.1%. Of this sample, 63% are male and 37% female. Similarly, by age, 29.1% are below 30 years, 31.3% between 30–39 years while 17.4% fall within the range of 40–49 years of age. Only 3 respondents equivalent to 2.2% of the sampled population are around 50–59 years while 28 respondents equivalent to 20.3% are above age 60. On marital status, 84 respondents equivalent to 60.9% are married while 54 (39.1%) are not married. The data analysed on education of the respondents reveals that 21 equivalent to 15.2% of the sampled population hold either PhD or Masters Degree. The category of respondents with highest frequency is of those who hold either Degree or HND with 45.1% equivalent to 63 respondents.
4.2 Background of the MSEs
Section B of questionnaire captured data on the Background of MSEs which include amount of capital, number of workers, years of operation and sector of MSE. The results generated from the descriptive statistics are presented hereunder in frequency tables:

**Table 1: Amount of capital excluding the cost of land**

<table>
<thead>
<tr>
<th>Valid Capital Range</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>N1000 - N1.49M</td>
<td>102</td>
<td>73.9</td>
<td>73.9</td>
<td>73.9</td>
</tr>
<tr>
<td>N1.5M - N49M</td>
<td>33</td>
<td>23.9</td>
<td>23.9</td>
<td>97.8</td>
</tr>
<tr>
<td>N50 - N200M</td>
<td>3</td>
<td>2.2</td>
<td>2.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>138</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Research Survey, 2016

From Table 1, 79.9% of the sampled respondents have their capital base excluding the cost of land ranging between N1000-N1.49M which is the highest in frequency. Other respondents have between N1.5M-N49M and N50-N200M equivalent to 23.9% and 2.2% respectively.

**Table 2: Number of Workers**

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10</td>
<td>114</td>
<td>82.6</td>
<td>82.6</td>
<td>82.6</td>
</tr>
<tr>
<td>11-100</td>
<td>24</td>
<td>17.4</td>
<td>17.4</td>
<td>95.7</td>
</tr>
<tr>
<td>101 AND ABOVE</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>138</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Research Survey, 2016

The analysis in Table 2 shows that 82.6% of the respondents have between 1-10 numbers of workers while 17.4% have between 11-100 numbers of workers. However, no respondent have more than 100 workers.
<table>
<thead>
<tr>
<th>Frequency</th>
<th>Less Than 5 Years</th>
<th>5-10 Years</th>
<th>11-15 Years</th>
<th>Above 15 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>49</td>
<td>76</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Percent</td>
<td>35.5</td>
<td>55.1</td>
<td>2.9</td>
<td>6.5</td>
</tr>
<tr>
<td>Valid Percent</td>
<td>35.5</td>
<td>90.6</td>
<td>93.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Cumulative Percent</td>
<td>35.5</td>
<td>90.6</td>
<td>93.5</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Research Survey, 2016

From the data collected, analysed and presented in Table 3, 35.5% have spent less than five years doing their business, 55.1% have operated between 5-10 years (which is highest in frequency) while 6.5% of the sampled population had spent more than 15 years doing their business.

Table 4: Sector of MSEs

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Artisan</th>
<th>Body Care</th>
<th>Food and Water</th>
<th>ICT</th>
<th>Provision Store</th>
<th>Farming</th>
<th>Building</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>27</td>
<td>12</td>
<td>21</td>
<td>12</td>
<td>24</td>
<td>15</td>
<td>27</td>
</tr>
<tr>
<td>Percent</td>
<td>19.6</td>
<td>8.7</td>
<td>15.2</td>
<td>8.7</td>
<td>17.4</td>
<td>10.9</td>
<td>19.6</td>
</tr>
<tr>
<td>Valid Percent</td>
<td>19.6</td>
<td>28.3</td>
<td>43.5</td>
<td>52.2</td>
<td>69.6</td>
<td>80.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Cumulative Percent</td>
<td>19.6</td>
<td>28.3</td>
<td>43.5</td>
<td>52.2</td>
<td>69.6</td>
<td>80.4</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Research Survey, 2016

From Table 4, analyses indicate Artisan and Building are the MSEs sectors with highest frequencies of 27 each equivalent to 19.6 each respectively. For the purpose of this study, artisan is comprised of tailors, furniture makers, shoemakers, vulcanizers, and pottery makers. While building is made up of those involved in block and brick making and sale of building and construction materials. Food and water is defined to include restaurants, bakeries, caterers, and packaged water producers. In farming, you have poultries, fish ponds, horticultures and animal feeds.

4.3 Descriptive Statistics measuring the stance of MSEs regarding CSR

The descriptive analysis that evaluate the level of commitment of MSEs to the practice of CSR indicated an average mean of 4.0652 and the average standard deviation of 0.88680.
These means that the sampled MSEs have positive mind-set regarding the practice of CSR in Minna metropolis of Niger State.

### 4.4 Descriptive Statistics indicating the Core Areas of CSR targeted by the MSEs

#### Table 5: Descriptive Statistics on core areas of CSR being practiced by MSEs

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR Customer Relation</td>
<td>138</td>
<td>2.00</td>
<td>5.00</td>
<td>4.0652</td>
<td>.73699</td>
</tr>
<tr>
<td>CSR Community Development</td>
<td>138</td>
<td>2.00</td>
<td>5.00</td>
<td>3.5870</td>
<td>.79898</td>
</tr>
<tr>
<td>CSR Environmental Protection</td>
<td>138</td>
<td>2.00</td>
<td>5.00</td>
<td>3.5652</td>
<td>1.12020</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>138</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data output using SPSS V. 16

From Table 5, CSR engagement by MSEs relating to customer relations indicate the highest mean of 4.0652 and the lowest standard deviation of 0.73699. Consequently, their concern from these analysis shows that they have more concern for issues that have to do with customers than they showed in the cases of community development and environmental protection with mean of 3.5870 and 3.5652 and the standard deviation of 0.79898 and 1.12020 respectively.

#### Table 6: Descriptive Statistics on Impediments to the exercise of CSR by MSEs

<table>
<thead>
<tr>
<th>Impediment</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costly to engage in CSR</td>
<td>138</td>
<td>2.00</td>
<td>5.00</td>
<td>3.5435</td>
<td>.71603</td>
</tr>
<tr>
<td>No any clear benefit expected from CSR</td>
<td>138</td>
<td>2.00</td>
<td>5.00</td>
<td>3.5000</td>
<td>.88169</td>
</tr>
<tr>
<td>I am not interested in CSR</td>
<td>138</td>
<td>1.00</td>
<td>5.00</td>
<td>3.5000</td>
<td>.97599</td>
</tr>
<tr>
<td>No much information about CSR</td>
<td>138</td>
<td>2.00</td>
<td>5.00</td>
<td>3.8222</td>
<td>1.06411</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>138</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data output using SPSS V.16

From table 6, items identified in the work of Ramasobana and Fatoki (2004) as impediments on the part MSE owners to the practice of CSR in the Limpopo province of South Africa were applied. From the analysis, respondents who aligned that “no much information” about CSR requirements revealed the highest mean of 3.8222 and the highest standard deviation of 1.06411. Conversely, respondents with a mean of 3.5435 and a corresponding standard deviation of 0.71603 believed that CSR is “costly to engage in”. The respondents who are associated with the notion that “CSR has no any clear benefit” or that they are “not just interested” indicated equal mean of 3.5000 but a varied standard deviation of 0.88169 and 0.97599 respectively.
5. Conclusions and Recommendations

5.1 Conclusions
This study was floated to examining the attitudes of MSEs in Minna metropolis of Niger State towards specific CSR engagements which include customer relations, community development and environmental protection. Expectedly from the analyses, findings indicate that they are more disposed to customer relation issues such as allowing them the opportunity to return defect products and get a replacement. Although the mean score for all the variables are significant, it shows that they have more concern for community development than they do for environmental protection. From the other side of the clime, analyses on the barriers to the implementation of CSR indicate that non availability of information urging and directing MSEs toward specific CSR engagements is the major impediment to their commitment. These findings are consistent with the studies carried out by Ramasobana and Fatoki (2004) in South-Africa, Longo, Mura and Banoli (2005) in Italy and Nejati and Imran (2009) in Malaysia.

5.2 Recommendations
In line with the findings, the study recommends that MSME and Microfinance Boards and other regulatory agencies for SMEs to enlighten them on their roles as far as CSR is concerned. They should be reminded that business is business regardless of its size and that society would always expect them to behave responsibly. Beyond customer relations also, SMEs should be mindful of their business practices and avoid actions that would endanger societal well-being. Indiscriminate liquid and solid waste disposal, emission of large sounds, poisonous gases and smokes should be eschewed. MSMEs and Microfinance agencies should ensure that business plans submitted by MSEs specifies what they intend to provide for the improvement of the society. Profit target in not an end to business survival in the long run but a means to an end. The small communal activities and commitment to the plight of host environments would be the long run determinants of the profits.

References


MOTIVATION AND BARRIERS FOR BUSINESS START-UP AMONG GRADUATES: A GENDER DIFFERENCE

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Abstract
The gender issue in entrepreneurship has been researched from different views and dimensions. Some of the studies focused on distinguishing between male and female entrepreneurs in terms of their personal skills and socio-demographic characteristics and others attempted to determine individual’s intention and behavior toward entrepreneurship. The study analyzes gender difference on perception of motivational factors and barriers for business start up among graduates. The study was conducted in Kano metropolitan using cross sectional/survey design. The population of the study composed of graduates who are either unemployed or paid employed who have obtained Bachelor degree or Higher National Diploma qualification for not more than three year as basis for selection. Discriminant analysis (DA) is used to investigate gender difference on the basis of perception about the selected variables on business start up. Discriminant analysis is useful in creating an equation that will minimize the possibility of misclassifying cases into their respective groups or categories. The result shown highly significant discriminant function (p < .000) and indicates that the proportion of the total variability not explained is about 37.7 % . The Box’s M is 14.012 with F = 4.638 which is highly significant p < 0.003. There is evidence to reject the null hypothesis which state that the groups do not differ on their perception about motivation and barriers for business start-up. It is recommended for future studies to explore the moderating effect of religiosity and culture on business start up.

Key words: Entrepreneurship, Motivation, Barriers, Business start-up, Gender
1.0. Introduction

The importance of business start-ups has been mentioned repeatedly in entrepreneurship literature. In many studies several reasons were advanced in favour of new business creation as a source of employment generation and economic prosperity. Business creation promotes both individuals and economy in terms of wealth creation, innovation, competitiveness and economic growth (Garba, 2012a). It is because of these benefits that many government of both developed and developing world encouraged its citizen’s involvement in various entrepreneurial activities. Many scholars offered distinctive but similar definitions of the term entrepreneurship. For instance Kirzner (1997) asserts that entrepreneurship is alert to opportunity. Shane & Venkataraman (2000) see entrepreneurship as a process in which knowledge can be converted into products and service. These definitions impliedly pointed out the fact that entrepreneurs must create the necessary condition to respond to opportunity by engaging in production of goods and services. This also means that entrepreneurs have to start business in order to exploit an existing opportunity (Ortiz, Leiva, Henn & Hernandez, 2015). In the mainstream understanding, entrepreneurship is about spotting and exploiting business opportunity.

Similarly, from the opportunity viewpoint, Shane & Venkataraman (2000) defined entrepreneurship in terms of discovery, evaluation and exploitation of opportunity. To pursue any opportunity is squarely depends on the personal choice of individual and his or her motivation to do so. Prior to individual decision to pursuing any business opportunity, there are must be necessary motivation to arouse intention to start-up a business. The attributes of prospective entrepreneurs matter in initial decision and subsequent entrepreneurial process (Shane, Locke & Collins, 2003). It is argued that pursuing an opportunity is not as easy as it appears to some people. It requires painstaking steps to identify, mobilize resources and exploit such opportunity. In spite of the inherent challenges many opted for entrepreneurship as a pathway to prosperity. Both prospective and existing entrepreneurs must be willing to pursue opportunity before any entrepreneurial process come into being.

Individual’s motivation plays a very important role in creating new firm. People who are without the necessary motivation may find starting a business to be very difficult and probably these kinds of people are without the zeal and enthusiasm to withstand the challenges and forge ahead. Apart from the individual motivation, there are barriers that may
constitute a stumbling block in furtherance of entrepreneurs’ intention of starting business. Perhaps that is why some people have chosen to remain employee instead of being self-employed. In view of various effort of the government to promote entrepreneurship in Colleges and Universities across the country, it is imperative to find out if entrepreneurship education is really making impact on the graduate’s decision to start-up business after graduation. Similarly, it is equally to ascertain what motivate them and what constitute barriers to starting their own business otherwise the set goal of reducing unemployment and poverty through entrepreneurship may not be feasible. Therefore, the motivation of this study came as a result a strong desire to understand these factors and their impact on graduate business start-up.

Understanding both motivational factors and barriers is very important to entrepreneurs and policy makers (Sloka, Kantare, Avotine & Jermolajeva (2014). In fact, any theory that down play the importance of motivation in new business creation is considered incomplete (Segal, Borgia & Schoenfeld, 2005). There are several studies that conducted motivation and barriers to entrepreneurship (Mahmood, Khalid, Sohail & Babak, 2012; Adjei, Broni- Pinkrah & Denanyoh, 2014; Gorji & Rahimian, 2011), but none considers examining the gender differences among graduates on motivation and barriers to business start-up. Therefore the objective of the study is to analyze gender difference on motivational factors and barriers for business start-up among graduates. The paper is structured into six different sections. After the introductory section, the next section deals with the literature review. Section three explains the methodology and in section four and five results and discussion of findings were presented respectively. The last sections deal with conclusion and implication of the study.

1.1 Problem Statement

The decision to start-up a business is dependent on many factors such as individual family background, working experience, education, social network, gender, age, financial wherewithal etc, among others. The attainment, availability and accessibility to these factors are germane in motivating individuals to start-up their own business. On the contrary absence or lacking of these factors could also create barriers for business start-up even if there is strong intention.
The incorporation of entrepreneurship education in tertiary education curriculum was aimed at inculcating entrepreneurial spirit and provides skills to teeming students in tertiary institutions. The educational policy makes it mandatory for every student irrespective of discipline to undergo entrepreneurship education as a condition for graduation. Since the implementation of that policy there was little or deliberate attempt to evaluate the impact of entrepreneurship education on graduates for business start-up. Many graduates pass out from University, College or Polytechnic but without the necessary motivation to start their own business as such there is little or no impact on job creation and poverty reduction in the country.

Male generally have upper hand to engage in economic activities by virtue of their positions in providing livelihood to their family members. Women roles were largely home keepers and subservient to their husbands’ whims and caprice. In many societies, the family structure specifies the role of male and female which imposes some restrictions about what men and women to either start a business or not (Winn, 2005). Although, in Nigeria women are allowed to belong to a trade and business associations or even inherit or own property on their own, there are some restriction depending on the location, culture and religion of the people. The gender difference between male and female is imposed by the culture and religion is very apparent across ethnics groups. Before now, the cultural and religious values in the Northern part impacted more on the extent to which women access education, information and other resources. In fact, even today gender gap continues to be a major problem that affect entrepreneurial disposition of male and female graduates.

Based on the foregoing arguments, probably male graduate could be different from their female counterpart in motivation to start up business and their ability to deal with barriers for business start-up. It is in view of these issues that this study raises the following research question as a guide to this scientific process of investigation;

1. Is there any difference between male and female graduates on motivation for business start-up?
2. Is there any difference between male and female graduates on barriers for business start-up?
Research hypotheses

The following research hypotheses were formulated, tested and validated for the purpose of this study.

*Ho 1: There is no significant difference between male and female graduates on motivation for business start-up*

*Ho 2: There is no significant difference between male and female graduates on barriers for business start-up*

2.0 Literature review

The gender issue in entrepreneurship has been extensively discussed by various researchers and scholars (Robichaud, Zinger, & LeBrasseur, 2007; Du Rietz & Henrekson, 2000; Cliff, 1998; Mahmood, Khalid, Sohail, Babak, 2012; Gorji & Rahimian, 2011). Many studies took different views and dimensions on this issue. Some of the researchers focused on distinguishing between male and female entrepreneur in terms of their personal skills and socio-demographic characteristics (Brush, 1992; Hisrich & Brush, 1984; Chaganti, 1986). Perhaps, personal skills and composition of social-demographic factors can play a crucial role in determining individual’s entrepreneurial intention and behavior. There are several reasons why some individuals choose to start up their business rather than working for someone else. Entrepreneurial motivation can be explained using two related theories i.e push and pull theory (Gilad & Levine, 1986, Garba, 2012 b).

The push theory explains how someone is motivated to start up a business because of some negative forces such as lack of paid employment, job dissatisfaction, insufficient income etc. While, the pull theory explains that an individual may start-up a business because of the need to explore an opportunity and realize his/her personal ambition such as to become independent and wealthy. In essence depending on individuals’ circumstance, people are motivated to start-up business by either push or pull factors. But some studies indicated that individual start-up business primarily due to pull factor (Keeble et al., 1992; Orhan & Scott, 2001). This finding could be based on the earlier presumption that all entrepreneurs are opportunity seekers and exploiters. They purposely create business to exploit opportunity and maximize their private gains. But, in reality some individual when confronted with difficult socio-economic conditions tend to choose to create their own destiny by being entrepreneurial.
The theory of planned behavior is primarily developed to explain the process in which individual decide on and engage in a particular course of action (Ajzen, 1985). In fact, the framework developed by Ajzen (1991) is helpful in explaining entrepreneurial intention (Kolvereid, 1996).

The initial intention of the business founder affects the future performance of the firm (Garba, Kabir & Nalado, 2014). There are individual differences about what kind of business to do and how it will be in some years to come. For instance, male are usually placing greater emphasis on profit and business growth (Kent, Sexton & Vesper, 1992; Stevenson & Gumpert, 1985). While female have the tendency of assessing their performance and growth by trying to strike a balance between their family role and the business they have chosen to pursue (Kaplan, 1988; Cliff, 1998). In fact, there are other factors that explain why female who have started small business do not place more emphasis on growth (Moore, 1990; DeMartino & Barbato, 2003; Robichaud, Zinger & LeBrasseur, 2007). According to Segal et al. (2005) human endeavors such as creating a new business are as a result of people’s cognitive processes. The Vroom’s (1964) expectancy theory is very useful in understanding motivation to business start-up. The theory explains that individual will choose among other options a behavior that will give him/her the most desirable outcomes. Motivation is conceptualized as a product of expectancy, Instrumentality and valence (Segal et al., 2005). People would like to start business if they discover that the expected reward surpasses gain from other options such as wage from employment (Praag & Cramer, 2001). Moreso, the expectation of reward is contingent upon individual assessment about his/her ability and attitude toward risk taking. According to expectancy theory entrepreneurial activity is a function of feasibility and desirability (Segal et al., 2005).

There were some criticisms on empirical studies conducted on motivation in entrepreneurial process. In fact this is largely responsible for the discouragement in recent time to explore the role of human motivation in entrepreneurial process among researchers (Aldrich & Zimmer, 1986; Caroll & Mosakowski, 1987). That is the reason why theories of entrepreneurship do not take into account the differences in motivation among individuals (Shane et al., 2003). The entrepreneurial process ought to have started with an intention to start a business by identifying entrepreneurial opportunity and pursue that opportunity through coordination of both human and material resources. In a broadest sense, entrepreneurial act has to do with
human agency (Shane et al., 2003). In pursuance of business opportunity people might have different motivation and willingness to act in many ways. Some studies have shown that people differ in their willingness to engage in entrepreneurial process (Shane et al., 2003). It was argued that willingness to pursue business opportunity is dependent on some factors such as opportunity cost (Amit, Meuller & Cock, 1995), stock of financial capital (Evan & Leighton, 1989), social ties to investors (Aldrich & Zimmer, 1986) and career experience (Caroll & Mosakowski, 1987; Cooper, Woo & Dunkleberg, 1989). Shane et al. (2003) suggest how human motivation may influence the entrepreneurial process. Some of the motivations described include the need for achievement (nAch), locus of control, desire for independence, passion and drive. Motivation and intention are very important factors in any attempt to create new firm (Herron & Sapienza, 1992). In fact, it was argued that theories of organizational creation that neglect the issue of motivation will be treated as incomplete one (Segal, et al., 2005).

In the same vein, motivation and obstacles play important role in influencing entrepreneurial intention and the eventual lunching of new business by graduates. The motivational factors encourage them while the obstacles prevent them from starting their business (Fatoki, 2010). Graduate who is a potential entrepreneur may motivated and have intention to start a business but lack of capital or finance can be a serious challenge that can hinder the start up of the business. According to Smith & Beasby (2011), the perceived constraining factors for graduates to start up their business were among things are lack of business knowledge, finance, mentor etc. And perceived enabling factors include creativity and innovative ideas, co-mentoring by the business partner, business support etc.

Furthermore, the move to start-up a business can be promoted or accentuated by the level of someone’s social networking among other things. The ability to connect with other prospective and established entrepreneurs could be a good motivating factor for business start up. While lack of social networking could constitute a barrier for easy take off of the business. It is expected that at the formation phase the founder (either male or female) may not have the necessary networking particularly among the entrepreneurs’ eco-system. But as the firm grows, it is likely that more experiences and opportunity can be gained about entrepreneurship. This suggests that social networking process for both male and female may take different form at different phase of entrepreneurial process. It is assumed from previous studies that social network with regard to gender may not be generalized across all phases of
entrepreneurial process (Klyver & Grant, 2010). One of the major findings on this issue is that there are gender differences in social network structure especially at the earliest phases of the process, but as the business advances to later stage such differences dissipated (Klyver & Terjesen, 2007). It is stated that male and female social network may be more similar at the initial phases than in the other phases of entrepreneurial process. The argument is that there is a pre-venture difference between male and female in social networking. The earliest part is characterized by lack of social network which constitute a barrier rather than motivation for business start-up. Therenon (1997) stated that both male and female who are successfully lunching their business try to develop similar social network in order survive competition.

The understanding that women have specific role in the society reinforced the belief of treating women differently in the area of doing business (Carr & Chen, 2004). For instance, in some countries women are not allowed to belong to a trade and business associations or even inherit or own property on their own. These cultural values are negatively impacting on the extent to which women access to education, information and other resources. Similarly, in many occasion it is the family structure which specify the role of male and female imposes some restrictions about what men and women can create an organization (Winn, 2005). The society someone find him/her self determine the extent to which he/she will be motivated to start-up new business. One of the major problems that continue to be a setback for entrepreneurial disposition is gender gap. Women are considered to be less confident, less motivated and less desire for business start-up. Women whose motive is to pursuit a better work-life balance are less likely to succeed. And whose motive is risk taking are more likely to succeed (Rey-Marti, Porcar & Mas- Tur, 2015). In the same vein, some scholars argued that traits required for business start-up are masculine in nature (Garba, 2011). Therefore, so long as this belief continued to exist among people, it will continue to be a barrier for women entrepreneurs.

3.0 Methodology
Research Design
The study involved cross sectional/survey method which is conducted in Kano metropolitan. During the survey, questionnaires were distributed to respondents soliciting for cross sectional data for the purpose of analysis.
Population of the study
The population of this study composed of graduates who are either unemployed or employed for not more 3 years. In the context of this study, graduates are those who have earned either bachelor degree or Higher National Diploma (HND) qualification not more than 3 years ago living in Kano metropolis.

Sample and Sampling techniques
The determination of exact number of the population is extremely difficult because there was no official record of graduates who are unemployed and those who working for not more three years in all sectors. Therefore, the initial sample size of 384 was selected using a formula for determining sample size for infinite population as shown below;

\[
SS = \frac{Z^2 \times p \times (1-p)}{C^2}
\]

\[
SS = \frac{3.84416 \times (.5) \times (1-.5)}{0.0025} = 384
\]

The sample size was improved from 384 to 500 as suggested by some scholars to remedy the effect of low response rate (Hair et al., 2011). In selecting the appropriate sample, purposive sampling technique was used. The **purposive sampling has advantage over other non-probability sampling method** because it allows the researcher to reach a targeted sample easily that will represent the entire population. However, there is possibility that among those selected, some might have earned additional qualification but still they are classified as graduates because they could not reveal their actual highest qualification. This is one of the major limitations identified with purposive sampling in this study. Out 500 questionnaire distributed, 336 questionnaires were returned and 316 were correctly filled and used for analysis. Therefore, the response rate is 67.2%.

Definitions and Measurement of variables
In this study motivational factors are defined as the driving force eliciting the desire and ability of individual to start-up a business. While barriers are defined as constraining forces that limit or hinder the ability and willingness of individual to start-up a business. To measure these variable 16 items and 20 items for motivation and barriers respectively were initially adopted from Giacomin et al. (2010) with some modification to suit the need of this study (see appendices 1A and 1B).
Validity and Reliability of the Research Instrument

To validate the instrument a pilot study was carried out and subsequently, exploratory factor analysis was conducted. Kaiser-Meyer-Olkin (KMO) for sampling adequacy and Bartlett’s test of sphericity reveal that the KMO’s value of 0.928 and Bartlett’s test of sphericity was significant (p < 0.000). The result further reveals that after rotation only seven items for motivation and six items for barriers were extracted that have value greater than 1 with a total variance explained 62.38% for motivation and 63.71% for barriers.

<table>
<thead>
<tr>
<th>Instrument</th>
<th>No. of items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>6</td>
<td>.904</td>
</tr>
<tr>
<td>Barriers</td>
<td>5</td>
<td>.723</td>
</tr>
</tbody>
</table>

Reliability test was also conducted to test the internal consistency of the variables. The result of the test in table 1 shows that both items of the two variables have Cronbach’s alpha higher than the acceptable threshold 0.70 (Hair et al., 2011). The study used questionnaire which contains three parts namely; demographic characteristics of the respondent, perceived motivational factors and perceived barriers for business start up was administered to the respondents. On each item the respondents were asked to rate the importance of each item to them on 5 points Likert’s scale ranging from “1” which is very unimportant, to “5” which is very important.

Data analysis

In this study, discriminant analysis (DA) is used to investigate gender difference on the basis of perception of motivational factors and barriers for business start up. Discriminant analysis is useful in creating an equation that will minimize the possibility of misclassifying cases into their respective groups or categories. Like regression equation, DA determines linear equation that will predict which group each case belongs to. The linear equation or function for DA is:

$$DF = v_1X_1 + v_2X_2 + v_3X_3 + v_4X_4 + \ldots \ldots \ldots v_nX_n + a$$

Where $DF = \text{discriminant function}$

$v = \text{discriminant coefficient or weight for that variable}$

$X = \text{respondent’s score for that variable}$
\( n = \text{the number of predictor variables} \)
\( a = \text{a constant} \)

4.0 Presentation of results

The primary task in discriminant analysis is to predict a group membership. It is expected that the DA will provide information on the difference between male and female on the basis of the attributes for business start-up which contribute most to separate the two groups. The descriptive method identifies linear combination of motivators and barriers which is known as canonical discriminant function which contribute maximally to group separation. The analysis produces various statistical output which can be seen sequentially in the tables 1 to 8.

### Table 2: Group statistics table

<table>
<thead>
<tr>
<th>Gender</th>
<th>Valid N (listwise)</th>
<th>Mean</th>
<th>Std. dev</th>
<th>Unweighted</th>
<th>Weighted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Motivation</td>
<td>-.2993</td>
<td>1.81098</td>
<td>147</td>
<td>147.000</td>
</tr>
<tr>
<td></td>
<td>Barriers</td>
<td>1.2041</td>
<td>1.51223</td>
<td>147</td>
<td>147.000</td>
</tr>
<tr>
<td>Female</td>
<td>Motivation</td>
<td>.4260</td>
<td>1.34811</td>
<td>169</td>
<td>169.000</td>
</tr>
<tr>
<td></td>
<td>Barriers</td>
<td>1.6509</td>
<td>1.47277</td>
<td>169</td>
<td>169.000</td>
</tr>
<tr>
<td>Total</td>
<td>Motivation</td>
<td>.0886</td>
<td>1.61886</td>
<td>316</td>
<td>316.000</td>
</tr>
<tr>
<td></td>
<td>Barriers</td>
<td>1.4430</td>
<td>1.50552</td>
<td>316</td>
<td>316.000</td>
</tr>
</tbody>
</table>

The group statistics in table 2 provides information regarding to significant difference in both motivational factors and barriers for business start-up without which there would be no basis or justification for continuing with discriminant analysis. It can be seen from the same table above that the mean difference of the two variables can be good discriminators as the separation is somehow large.

### Table 3: Tests of Equality of Group Means table

<table>
<thead>
<tr>
<th>Wilks' Lambda</th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>.950</td>
<td>16.563</td>
<td>1</td>
<td>314</td>
</tr>
<tr>
<td>Barriers</td>
<td>.978</td>
<td>7.058</td>
<td>1</td>
<td>314</td>
</tr>
</tbody>
</table>

Also table 3 shows strong statistical evidence of significant difference between the mean of male and female on both motivation and barriers for business start-up. It can be seen that motivational factors produce high value of \( F = 16.563 \).
Table 4: Log determinants table

<table>
<thead>
<tr>
<th>Gender</th>
<th>Rank</th>
<th>Log Determinant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>2</td>
<td>1.962</td>
</tr>
<tr>
<td>Female</td>
<td>2</td>
<td>1.359</td>
</tr>
<tr>
<td>Pooled within-groups</td>
<td>2</td>
<td>1.684</td>
</tr>
</tbody>
</table>

The ranks and natural logarithms of determinants printed are those of the group covariance matrices.

From table 4 log determinants appears similar and in table 4 the Box’s M is 14.012 with F = 4.638 which is highly significant p < 0.003. The decision is to reject the null hypothesis which state that the groups do not differ on motivation and barriers for business start-up.

Table 5: Box’s M test results table

<table>
<thead>
<tr>
<th>Test results</th>
<th>Box’s M</th>
<th>F</th>
<th>Approx.</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14.012</td>
<td>4.638</td>
<td>3</td>
<td>4.674E7</td>
<td>0.003</td>
<td></td>
</tr>
</tbody>
</table>

Tests null hypothesis of equal population covariance matrices.

The table 6 shows the canonical correlation of .789 which suggest that the model explained up to 62.25% of the variation in the grouping variable i.e whether the respondent is male or female.

Table 6: Eigenvalues table

<table>
<thead>
<tr>
<th>Function</th>
<th>Eigenvalue</th>
<th>% of Variance</th>
<th>Cummulative %</th>
<th>Canonical Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.705a</td>
<td>100.0</td>
<td>100.0</td>
<td>.789</td>
</tr>
</tbody>
</table>

In table 7 the wilks’ lambda is indicating the significance of the discriminant function. This result shows highly significant discriminant function (p < .000) and indicates that the proportion of the total variability not explained is about 37.7 %. The portion not explained is the converse of the squared of canonical correlation.
The discriminant function operates just like the regression equation. The unstandardize coefficient (β) in table 8 are used to create the equation which shows partial contribution of each variable to the discriminant function controlling for all other variables in the equation. It can be used to access each independent variable’s unique contribution to the equation and provides relative importance of each variable. It can be seen that the discriminant coefficient for motivation is .520 and barriers is .298 with a constant of -.476.

Table 8: Canonical Discriminant Function Coefficients table

<table>
<thead>
<tr>
<th>Function</th>
<th>Motivation</th>
<th>Barriers</th>
<th>(Constant)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.520</td>
<td>.298</td>
<td>-.476</td>
</tr>
</tbody>
</table>

Unstandardized coefficients

Table 9 shows the classification phase in which the rows are the observed categories of the dependent and the columns are the predicted categories. The expectation is that when prediction is perfect all cases will be appeared diagonally in the table. The percentage of cases on the diagonal represents the percentage of the correct classification. However, the cross validated set of data is more honest presentation of the power of the discriminant function than that provided by the original classification. In some occasion produces a more reliable discriminant function as it excludes the cases someone is trying to predict as part of the categorization process.
Table 9: Classification results table

<table>
<thead>
<tr>
<th>Classification Results</th>
<th>Male or Female</th>
<th>Predicted Group Membership</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Count</td>
<td></td>
<td>Male</td>
<td>91</td>
<td>56</td>
<td>147</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>62</td>
<td>107</td>
<td>169</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>Male</td>
<td>61.9</td>
<td>38.1</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>36.7</td>
<td>63.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Cross- Validated Count</td>
<td></td>
<td>Male</td>
<td>91</td>
<td>56</td>
<td>147</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>62</td>
<td>107</td>
<td>169</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>Male</td>
<td>61.9</td>
<td>38.1</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>36.7</td>
<td>63.3</td>
<td>100.0</td>
</tr>
</tbody>
</table>

a. Cross validation is done only for those cases in the analysis. In cross validation, each case is classified by 
the functions derived from all cases other than that case.

b. 62.8% of original grouped cases correctly classified.

c. 62.8% of cross-validated grouped cases correctly classified.

The classification table shows that 62.8% of the respondents were classified into male or female. It can be seen that the female respondent were categorized slightly with better accuracy of 63.3% than male with 61.9%. On the hit ratio, since the two samples were not equal in size, it was not expected to have 50/50 chance. In most cases researchers accept any hit ratio that is 25% larger than the calculated ratio due to chance.

5.0 Discussion of findings

The consideration for individual to lunch a business depends on so many factors. People of different background, sex, or race may have different views about entrepreneurial process and outcome. However, perhaps motivational and barrier are among factors that shaped people’s view and even intention to business start-up, how these factors operate within any potential entrepreneur to influence his/her decision to start-up business can contribute in a great deal to the literature of entrepreneurship. Gender issue is very crucial in any discourse of entrepreneurship engagement especially in a country where both roles of male and female are clearly defined. Individual disposition in most cases explains the extent of what someone can do or not to do. The motivational and barriers for business start-up are not mutually exclusive things. It can happen that an individual may have strong motivation to start a particular business, but at the same time there series of constraining forces that may thwart his/her ability, zeal and interest to actualize that goal. The objective of the paper as earlier pointed out is to analyze gender difference with respect to perception of motivation and barriers for
business start-up. Therefore, identifying what constitute these variables for the two opposite group is extremely helpful in determining their interest for starting a business.

People might not necessary be at the university or college before they become entrepreneurs. There are examples of dropped out who found their business and excelled in the industry they are operating. Entrepreneurship education may not be guarantee for successful launching and sustenance of business venture. It is believed that people who undergo entrepreneurship training may be equipped with knowledge and skills that would enable them to explore and manage their business differently. Looking at the contemporary situations that necessitate every student to be trained and to acquire entrepreneurial skills, it may be assumed that graduates coming out from the universities or colleges will stand the chance of commencing their business immediately after graduation. One thing that is important to note that there are many factors that determine successful launching of a business.

The major goal of entrepreneurship education is to bring out the entrepreneurship interest in somebody and support potential entrepreneurs with the basic entrepreneurial skills and information that would assist in overcoming major business challenges. Any graduate who pass through the same training might have an advantage to start a business than the other category of people. Even among graduates there are differences about the rate of business start-up (Minniti et al., 2005; Reynolds et al., 2004). Generally, there is a belief that cultural difference is one of the strong determinants of entrepreneurial behaviour across countries (Hayton et al., 2002; Klyver & Grant, 2010). There are several reasons why women perform differently than men in starting a business. This study affirms that women have different motivation for business start-up. Based on the cultural and religious values in this study area, women are considered less privileged in accessing market opportunity and other business engagement compared to their men counterpart. Women may not have the same opportunity like men to freely participate in business arena. There is enough evidence to show that women enterprise is not entire separate economic entity, but it is interconnected network that involved the family and community (Robichaud et al., 2007). In fact the status and roles of both men and women are clearly specified in every Nigeria culture and society. Perhaps the difference between men and women can be accounted for based on the influence of cultural and religious values.
Generally, the participation of men in either paid employment and self-employed is more encouraged by virtue of their position as breadwinners to their immediate family members. Women are less encouraged because their domestic function of looking after the home, caring of children, attending other domestic activities. These naturally imposed values have serious impact on the initial entrepreneurial intention of women. Apart from these cultural values, another major contentious issue that contributes to this difference is individual’s personality trait. There is a consensus in the literature that men have more confidence and optimistic in exploiting business opportunity than their women counterpart. These traits matters a lot on whether someone would be involved in business or not. The main reason for business start-up is to exploiting opportunities for private or societal gain as the case may be. So, if men are more confident and optimistic, they can be more motivated to start their own business than women.

6.0 Conclusion and policy Implication

The decision to start a business is not an easy one. It is a complex process that involves individuals’ personality, interest, background and other factors (Winn, 2005). New business creation is a conscious decision implemented by individual with some qualities. In the face of the present realities, if young men and women would choose entrepreneurship as a career choice, it will go a long way in improving their economic status. If both gender participations is necessary for the needed enterprises development, economic prosperity, employment generation and poverty reduction, then it is also significant for policy makers to both motivators and barriers for new business start-up. The government role should be that of motivating the prospective entrepreneurs through various support programmes and policies. In any case where there are stumbling block and barriers to entrepreneurs to start-up business, then the chance for people the create business may be narrowed.

The motivation of this study came as a result a strong desire to understand what motivate and what hindered graduates from starting a business and find gender difference if any. This study contributed to literature of entrepreneurship by examining the difference between male and female graduates on what motivate them and what constitute barriers for them to start-up their own business. Most of the previous studies examined gender difference by considering that all male are the same or all female are the same. This study single-out graduates as distinct group among gender to see if there is any between male and female.
The theory of planned behavior takes into account the process by which individuals decide to engage in a particular course of action. Azjen (1991) framework also, though providing good model for explaining entrepreneurial intention, it does not capture gender differences in explaining entrepreneurial intention and subsequent action of both men and women. Attitude, subjective norms, perceived behavior, behavioral intention together could assist in predicting individual behavioral performance. But taking into cognizance the gender difference, the extent to which these combine variables affect behavioral performance could vary. Given the fact that entrepreneurial education is incorporated in the school curriculum, it may be argued that the graduates of today are assumed to be well grounded to pursue entrepreneurial career. The primary goal of entrepreneurial education is to inculcate the desire for individuals to lunch and enable the students to acquire necessary skills and knowledge to create and manage their own business rather seeking for paid employment. The question is that if male and female could undergo the same entrepreneurial training, can they perform in the same way or can gender influence their performance. All thing being equal, they may be expected to produce the same result of lunching their business. In an ideal situation entrepreneurial sensitivity between men and women varies. At times cultural context has a significant impact on student’s entrepreneurial orientation (Giacomin et al., 2010).

For any University/college to create entrepreneurship programme that are appropriate in context and strengthen students’ perception of feasibility and desirability of entrepreneurship, intention, motivation and barriers to any prospective entrepreneurship student need to be understood. Religion and cultural context is very important in explaining students’ entrepreneurial orientation and why people start-up business. To understand fully what influence graduates decision to on whether to lunch a business or not, the impact of cultural and religion need to be ascertained. Therefore it is important for the future study to take into cognizance the moderating role of religiosity and culture on the desire for business start-up. Due to the limitations with regard to representativeness of sample selected and coverage, the result of this study may not allow generalization. The findings could only be limited to Kano metropolitan where the data is collected as there were many graduates in other areas who were not represented in the sample.
Disclosure Statement

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Acknowledgement

N/A

References


**Appendix 1 A**

**Motivation for graduates’ business start-up**

1=Unimportant, 2=Unimportant, 3=Neutral, 4= Important, 5=Very important

<table>
<thead>
<tr>
<th>S/N</th>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The chance to implement my business idea</td>
<td></td>
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<tr>
<td>2</td>
<td>Creating a business of my own</td>
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<td>3</td>
<td>Personal independence</td>
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<tr>
<td>4</td>
<td>Being at the head of an organization</td>
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<td>5</td>
<td>The opportunity to be financially independent</td>
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<tr>
<td>6</td>
<td>Improving my quality of life</td>
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<td>7</td>
<td>Creating job for myself and others</td>
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<td>8</td>
<td>Managing my own business</td>
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<td>9</td>
<td>Generation sufficient revenue/income</td>
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<tr>
<td>10</td>
<td>Making more money than by working for wages</td>
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<tr>
<td>11</td>
<td>Dissatisfaction from paid employment</td>
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<tr>
<td>12</td>
<td>Building personal wealth</td>
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<td>13</td>
<td>Having my own time</td>
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<td>14</td>
<td>Gaining high social status</td>
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<tr>
<td>15</td>
<td>The difficulty in getting white color job</td>
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<tr>
<td>16</td>
<td>Following a family line of business</td>
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Appendix 1B

Barriers for graduates’ business start-up

1=Unimportant, 2=Unimportant, 3=Neutral, 4= Important, 5=Very important

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<th>3</th>
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<td>Excessively risky</td>
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<td>Lack of initial capital</td>
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<tr>
<td>3</td>
<td>Lack of entrepreneurial capital</td>
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<tr>
<td>4</td>
<td>Current economic situation</td>
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<td>5</td>
<td>Fear of failure</td>
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<td>6</td>
<td>Excessive tax and legal charges</td>
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<td>7</td>
<td>Lack of knowledge</td>
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<td>8</td>
<td>Lack of knowledge of the business world and market</td>
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<td>9</td>
<td>Lack of ideas regarding what business to start</td>
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<td>10</td>
<td>Lack of experience in management and accounting</td>
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<td>11</td>
<td>Lack of available assistance in accessing business viability</td>
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<td>12</td>
<td>Lack of legal assistance or counseling</td>
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<td>13</td>
<td>Irregular income</td>
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<td>14</td>
<td>Lack of formal help to start a business</td>
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<td>Lack of organizations to assist entrepreneurs</td>
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<td>16</td>
<td>Doubt about personal abilities</td>
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<td>17</td>
<td>Lack of confidence</td>
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<td>18</td>
<td>Start-up paper work and bureaucracy</td>
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<td>Having to work too many hours</td>
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<tr>
<td>20</td>
<td>Lack of support from my family or friends</td>
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</table>