

SUSTAINABLE DEVELOPMENT

Linking Society and Management



Edited by :
Dr. C. Kathiravan
Dr. Rincy V. Mathew

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Prologue

Sustainable development in society occurs when the formal and informal processes, systems, structures, and relationships actively support the capacity of current and future generations to create healthy and livable communities. Socially sustainable communities are equitable, diverse, connected and democratic and provide a good quality of life. Sustainable Human Development that can be seen as development that promotes the capabilities of present people without compromising capabilities of future generations. In the human development paradigm, environment and natural resources should constitute a means of achieving better standards of living just as income represents a means of increasing social expenditure and, in the end, well-being.

The different aspects of sustainable development to society and management are often considered in socially responsible investing (SRI). Managing social sustainability criteria that are commonly used by SRI funds and indexes to rate publicly traded companies include: community, diversity, employee relations, human rights, product safety, reporting, and governance structure. Therefore this is a process for creating sustainable, successful places that promote wellbeing, by understanding what people need from the places they live and work. Sustainable development to society and its management combines design of the physical realm with design of the social world – infrastructure to support social and cultural life, social amenities, systems for citizen engagement and space for people and places to evolve. There are several approaches to sustainability. The first, which posits a triad of environmental sustainability, economic sustainability, and sustainable development to society is the most widely accepted as a model for addressing sustainability. The concept of sustainable development –linking to society and management approach encompasses such topics as: social equity, livability, health equity, community development, social capital, social support, human rights, labour rights, peacemaking, social responsibility, social justice, cultural competence, community resilience, and human adaptation etc. A second, more recent, approach suggests that all of the domains of sustainability are social: including

ecological, economic, political and cultural sustainability. These domains of sustainable developments are all dependent upon the relationship between the social and the natural, with the "ecological domain" defined as human embeddedness in the environment. In these terms, social sustainability encompasses all human activities. It is not just relevant to the focused intersection of economics, the environment and the society. Therefore the aim of the book "Sustainable Development-Linking management and society is focused to share various key issues and solutions of sustainable development which affects the societies and economies in different countries. Authors of various countries contributed their research in various aspects of sustainable development towards society and its management. The future mankind is being shaped by managing sustainable development issues and no one nation can address this issue alone. Multi-lateral cooperation is instrumental in solving the key challenges of managing sustainable development and through this book various international authors shared their views and opinions regarding the key areas of sustainable development in general and their country particularly. This book will be a good reference material for national as well as international researchers, students, academicians environmentalists, social workers, librarians etc..

Acknowledgement

We feel honoured for having had opportunity to bring out this edited volume on SUSTAINABLE DEVELOPMENT Linking Society and Management”. First we express our sincere gratitude towards authorities of Annamalai University for giving permission to publish this book and encouragement in this endeavour. We are extremely grateful to our honorable Vice Chancellor

Prof. V. Murugesan, the distinguished registrar Prof. Dr. N. Krishna Mohan, the esteemed Dean Faculty of Arts Prof. Dr.E.Selvarajan and the Professor & Head Department of Business Administration Dr. A. Rajamohan for their timely help. We are deeply indebted to all the faculty members, research scholars of Department of Business Administration Annamalai University for their constant encouragement for the successful completion of this work. Finally, we again thank all those who directly or indirectly helped us in this endeavour.

Editors

About Editors



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EFFECT OF MICROFINANCE CREDIT ON THE FINANCIAL PERFORMANCE OF MICRO, SMALL AND MEDIUM ENTERPRISES IN MUHANGA DISTRICT, RWANDA

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ABSTRACT

The purpose of this study was to examine the effects of microfinance credit on the financial performance of Micro Small and medium enterprises in Muhanga district, Rwanda. This study was guided by the following research objectives: To assess the effects of microfinance credit on the MSMEs Return on capital, to analyze the extent of the microfinance credit improve the financial performance of micro small and medium enterprise in Muhanga district, to determine how microfinance credit affect the growth of micro small and medium enterprises, to establish the reason why the microfinance credit is less popular in the Muhanga district an ex-post facto research design was used; both stratified and random sampling techniques were used to select 50 respondents out of 58 MSMEs with questionnaire and observation guide as the main data tools while document analysis was used in secondary data. Data were analyzed using both descriptive and inferential statistical methods. These findings strongly reveal there is an effect of microfinance credit on the financial performance of MSMEs. The positive relationship between microfinance credit and financial performance of MSMEs may reflect how MSMEs need to access microfinance credit and the government should put into consideration the rules and regulations that facilitate MSMEs to access easily the microfinance credit. This study concluded that High interest rate, credit ceiling have been mentioned as one of the challenges in accessing credit facilities of MFIs. However, indicated that MFIs have had a positive effect on the financial performance of MSMEs in Muhanga District, Rwanda.

Keywords: microfinance credit, financial performance micro, small and medium enterprises

INTRODUCTION

1.1 Background to the Study

In recent years, both developed and developing countries support for MSMEs development and growth has increased. This is because of the contribution of MSMEs to the employment creation.

Evidence shows that a dynamic and growing MSMEs sector can contribute to the achievement of a wide range of development objectives, including: the attainment of income distribution and poverty reduction as noted by (DFID, 2000); creation of employment which was echoed by (Daniels & Ngwira, 1993); savings mobilization as opinioned by (Beck et al., 2005); and production of goods and services that meet the basic needs of the poor as noted by (Cook & Nixon, 2000), Phillips & Kirchhoff (1989) cited by Pasanen (2006) found that young firms that grow have twice the probability of survival as young non-growing firms. It has been also found that strong growth may reduce the firm's profitability temporarily, but increase it in the long run (Pasanen, 2003). The growth of MSMEs is believed to be a desirable end as the key drivers of employment and economic development.

In a study done in India by Stuti Kacker (2013) asserted that, MSMEs have been almost established in all major sectors in the Indian industry such as food processing, Agricultural inputs, Chemicals and pharmaceuticals, Textiles, plastic products and Computer software.

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MSMEs are known for innovations as new product with good quality service as well it also provides employment opportunities. It is also known as backbone of the company. MSMEs constitute above 80% of total number of industrial enterprise and from the backbone of development. Not only in India but across the world MSMEs provides incredible contribution to the economy. MSMEs have above more than 40% share in industries, producing more than 8000 value-added products which contribute nearly 35% direct export and up to 45% in the export. After agriculture MSMEs is one of the biggest employment providing sector which provide employment nearly 28.28 million people. (Stuti Kacker, Ministry Small Scale industries 2013).

According to Peprah & Muruka (2010:52), echoed by Brune (2009:6), Lindsay (2010:3), and Nwigwe et al. (2012:34) micro-finance institutions aim at reducing poverty worldwide among financially excluded people. Suberu et al. (2011:253), stated that micro-finance institutions have a grass roots orientation and greater expertise in financing smaller enterprises.

Kibet et al, (2015) noted that with the introduction of MFI's in Tanzania is seen as the best alternative source of financial services for low income earners and their MSMEs as a means to raise their income, hence reducing their poverty level and contributing in country economy as asserted by (Kessy & Urrio, 2006). The service of microfinance institution to majority of Tanzanians who are low income earners have created opportunity to them including managing scarce household and enterprises resources more efficiently, protection against financial risks by taking advantages of investment opportunities and gaining economic returns as echoed by (Chijoriga, 2000). Micro finance enables clients to protect, diversify and increase their incomes, as well as to accumulate assets, reducing their vulnerability to income and consumption shocks (Robinson, 2002).

MSMEs in Kenya have the tendency to serve as sources of livelihood to the poor, create employment opportunities, generate income and contribute to economic growth. They have been seen as the means through which accelerated growth and rapid industrialization have been achieved according to (Koech, 2011). MSMEs have been recognized as socio-economic and political development catalysts in both developed and developing economies as noted by (Mwangi, 2011). Maalu, et al. (1999) discussed the role of Small and Medium Enterprises in the economy of Kenya and noted the important role it has played and continues to play, as being employment creation and income generation, the study noted other important roles in the economy such as production of goods and services and development of skills.

Micro Small and Medium Enterprises (MSMEs) are commonly believed to have very limited access to deposits, credit facilities and other financial support services provided by Formal Financial Institutions (FFIs). This is because these MSMEs cannot provide the necessary collateral security demanded by these formal institutions and also, the banks find it difficult to recover the high cost involved in dealing with small firms. In addition to this, the associated risks involved in lending to MSMEs make it unattractive to the banks to deal with micro and small enterprises (World Bank, 1994). Statistically, small enterprises are reported to have high failure rates making it difficult for lenders to assess accurately the viability of their enterprises, the abilities of the entrepreneur, and the likelihood of repayment.

MSMEs in Rwanda have the tendency to serve as sources of livelihood to the poor, create employment opportunities, generate income and contribute to economic growth. Micro-finance, on the other hand, according to Otero (1999) is not just about providing capital to the poor to combat poverty on an individual level, it also has a role at an institutional level. It seeks to create institutions that deliver financial services to the poor, who are continuously ignored by the formal banking sector.

According to MINICOM (2010), MSMEs Definition, MSMEs are to be considered based on the following conditions (in line with the World Bank report of 2004) whereby two of the three conditions must be met. For the avoidance of doubt, in this policy when using the popular term “MSME”, it is taken to include micro enterprises as well as small and medium enterprises. Registered cooperatives may also benefit from this policy in so far as they are SMEs.

Table1. 1: Micro, Small and Medium Enterprises in Rwanda

Size of the Enterprise	Net capital investments (Million RwF)	Annual Turnover (Million RwF)	Number of Employees
Micro Enterprises	Less than 0.5	Less than 0.3	1 to 3
Small Enterprises	0.5 to 15	0.3 to 12	4 to 30
Medium Enterprises	15 to 75	12 to 50	31 to 100
Large Enterprises	More than 75	More than 50	More than 100

Source: Secondary data, February 2018

However, Muhanga District most owners of MSMEs invest mostly on agriculture and industries to sustain its economy. The managers and owners of these MSMEs access credit from different microfinance institutions. Although; this cannot be achieved without removing barriers that hinder MSMEs from accessing credit facilities from financial institutions. Despite these contributions of MSMEs, their major barriers to financial performance and development appear to be shortage of both equity financing and debt.

1.2 Statement of the problem

Ideally access to financial services can boost job creation, raise income, reduce vulnerability and increase investments in human capital. MSMEs account for a significant share of employment and GDP around the world, but, when they have limited access to finance, the economy suffers a series of negative consequences: Economic and social opportunities are restricted, enterprise creation and growth are restrained, households and enterprises are more vulnerable to threats, and payments are costlier and less safe.

Unfortunately in Muhanga, the risk of start-up or expansion and the burden of taxation and other regulations have made even entrepreneurs who see opportunities in the market find it hard to bring those ideas into reality due to potential of failures. This challenge is exacerbated by the fact that financial institutions find it too high risk to lend to MSMEs given the cost/benefit ratio in terms of time and resources required to process MSME loans as well as the difficulties most SMEs face in consolidating capital and creating business plans to become viable lending candidates. This creates a blockage to growth where MSMEs that have the skills to scale-up or move into manufacturing and processing are constrained due to their limited access to finance, even if they are willing to assume the risk.

Several studies have been carried out both internationally and locally on the factors that influence lending to SMEs. For example, in a study by wanambisa, A. N & Bwasi, H.M (2013) on Effects of Microfinance Lending on Business Performance: A Survey of Micro and Small Enterprises in Kitale Municipality, Kenya, found that the amount of loans is significantly and positively related with performance of MSEs in Kitale Municipality, also the amount of loan given by MFIs to MSMEs should be increased to enable the MSMEs grow to medium scale enterprises. In yet another study by Akinyi, S.I (2014) on the effect of bank financing on the financial performance of small and medium-sized enterprises in Nairobi County, Kenya found that bank financing and SMEs’ size positively affected the SMEs’ financial performance while SMEs tangibility had an inverse relationship with the SMEs’ financial performance. However, in a study done by Barungi, F. & Gashija, F (2017) on contribution of business development fund to the financial access by small and medium enterprises in Rwanda, found that Small and

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medium sized enterprises in Kigali city and the southern Province have easy access to finance. The majorities of the SMEs in these areas are given loan guarantees, and are trained in business investment; however, the majorities do not receive mentorship and business advisory services from BDF. This study therefore, examines the Effects of Microfinance Credit on the financial performance of Micro small and medium Enterprises in Muhanga District, Rwanda

Most studies on MSMEs performance, growth and development acknowledge that lack of credit is the greatest constraint that SMEs face. Nonetheless, majority of the studies focus on the factors that influence the performance of SMEs and determinant of SMEs growth and conclude that access to credit is utmost problem, which if solved can help mitigate the other factors. As such, most of these studies deviate from an in-depth analysis of the financial challenge facing SMEs. Instead, the studies give recommendations to SMEs and other stakeholders on how to mitigate or solve the financing problem without determining the factors that influence access to credit. Moreover, there is no comprehensive study on the Effects of Microfinance Credit on the financial performance of Micro small and medium Enterprises in Muhanga District, Rwanda.

1.3 Objectives of the study

1.3.1 General Objective

- i. To examine the effects of microfinance credit on the financial performance of micro small and medium enterprise in Muhanga district,

1.3.2 Specific Objectives

To ensure an in-depth research is done in this study, the researcher investigates the following objectives:

- i. To assess the effects of microfinance credit on the MSMEs Return on capital,
- ii. To analyze the extent of the microfinance credit improve the financial performance of micro small and medium enterprise in Muhanga district,
- iii. To determine how microfinance credit affect the growth of micro small and medium enterprises,
- iv. To establish the reason why the microfinance credit is less popular in the Muhanga district.

1.3.3 Research questions:

To provide direction to this study, the researcher developed research questions from the objective of the study. By answering the following research questions the objective of this study was achieved

- i. What are the effects of microfinance credit on the MSMEs Return on capital?
- ii. To what extent does the microfinance credit improve the financial performance of micro small and medium enterprises?
- iii. How does microfinance credit affect the growth of micro small and medium enterprises?
- iv. Why is it that the microfinance credit is less popular in the Muhanga district?

1.4 Research Hypothesis

H₁. There is a relationship between microfinance credit and MSMEs Return on capital

H₂. There is a relationship between microfinance credit and financial performance of MSMEs.

H₃. There is a relationship between microfinance credit and growth of MSMEs

H₄. There is a relationship between microfinance credit and popularity of microfinance

Credit in Muhanga district.

1.6 Significance of the Study

1.6.1 Significance to MFIs

This study was centered on the activities of MFIs and their contributions to the development of macro small and medium size businesses in Muhanga, Rwanda

1.6.2 Significance to MSMEs

Microfinance as a whole provides the average Rwandan a means to have access to financial services in their localities to boost their living standards in a sustainable manner in line with the millennium development goal of alleviating poverty in developing countries. The study assist MFIs to adopt the necessary measures needed to ensure the desired growth in the SME industry.

1.6.3 Significance to the Government

For a country to grow, the government should actively promote business enterprises. Among business enterprises, the Micro Small and Medium Enterprises (MSME) deserve special attention. Though MSMEs are small investment enterprises, but their contribution to the Country economy is very significant.

1.6.4 Significance to Policy makers

This study is significance to the policy makers as they develop roadmaps to the Inter-Ministerial Committee for Accelerating Manufacturing in Micro, Small and Medium Enterprises made recommendations on (a) the promotion of start-ups (b) facilitating operation and growth (covering credit, technology, and marketing) (c) closure and exit (d) labor laws and regulations.

1.6.5 Significance to Others

This study is also be very important to other researchers who will be doing more research in the areas of MFIs and MSMEs as it will also help them come up with more recommendations on the area under the study.

LITERATURE REVIEW

2.1 Review of theories

2.1.1 Microfinance Credit Theory

Microfinance in Kenya is now fully fledged sector. (Dondo, 1999) traced the history of MFIs in Kenya to the mid-1950s when the joint Loan Board Scheme was established to provide credit to indigenous Kenyans with small trading business loans. The Microfinance Institutions in sector in Kenya has grown since it inceptions in the 1970s and is one of the most established in Africa (Kashangaki et al, 1999). The birth of specialized microfinance in Kenya was in the 1980s when Kenya Rural Enterprises Fund (K-REP) and the Kenya Women Finance Trust (KWFT) were established. In the 1990s more MFIs emerged for example Faulu Kenya, Small and Medium Enterprise Program commonly known as SMEP and Jamii Bora

RESEARCH METHODOLOGY

3.1 Research Design

This study was guided by an ex-post facto design. This research design was employed because it was not possible to ethically or physically control the variables and it was not also possible to conduct an experimental design on this study. The design was used to ascertain the relationship between microfinance credit on the financial performance of Micro Small and medium enterprises in Muhanga district, Rwanda.

3.2 Study Population

According to Frankel & Wallen (2000), a population refers to the group to which the results of the research are intended to apply. They stated that a population is usually the individuals who possess certain characteristics or a set of features a study seeks to examine and analyze. Kumekpor (2002), emphasized this by defining a population as the total number of all units of the issue or phenomenon to be investigated into which is “all possible observations of the same kind” Target population for this study will be 58 MSMEs from micro, small and medium enterprises with probability sampling procedures on 50 MSMEs in Muhanga district, Rwanda. The target population is chosen because they are the key informant who will be able to give information which will guide the researcher in making informed conclusion on the relationship between microfinance credit on the financial performance of Micro Small and medium enterprises in Muhanga district, Rwanda.

Table 3. 1: population and sample size

Population category	Population size	Sample size
Tailoring	15	14
Welders	5	4
Mechanics	5	4
Carpenters	8	7
Hairdressers	10	9
Vegetables Sellers	10	9
Restaurant	5	4
Total	58	50

Source: Researcher, (2018)

3.3 Sampling

Purposive sampling was used to get data from MSMEs in Muhanga district because they were deemed to be key informants for the study. In purposive sampling techniques, subjects are selected based on the judgment of the researcher. The study therefore consisted of a sample size of 50 respondents.

3.4 Data Collection Methods and Tools

3.4.1 Primary data source

Primary data were collected using observation guide and questionnaire which were both closed ended and open ended with two parts part one has section A which is contain background information such as age of respondent, gender, level of education and number of year of experience. Part two has section B to E which is be based on research question, this part was in form of a Likert scale anchored by a five- point rating ranging from strongly disagree=1 to strongly agree=5, 10 MSMEs were interviewed because they couldn't answered the questionnaire.

3.4.2 Secondary data Source

Secondly data were collected by use of document analysis that were obtained from literature sources or data collected by other sources for example county annual work plan (AWP), and annual county budgets which is give information regarding the county plan on development in the county and the county estimated revenue and expenditure.

Questionnaire was administered to: Tailoring, welders, Mechanics, Carpenters and hairdressers, while observation guide was used to vegetables sellers because a researcher observed what happen on the ground and document analysis was used to Restaurant. This research is quantitative in nature; the data were collected for period of two Months.

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3.4.3 Validity and reliability of the research instruments

3.4.3.1 Validity of the research instruments

To measure validity of research instrument the researcher used expert judgments; this is by relying on groups of individuals with specialist skill set, training or experience in the subject matter relevant to the activity being performed.

3.4.3.2 Reliability of the Research Instrument

The researcher is enhance the reliability of the data collected by ensuring that the questionnaires are pretested before being administered to the sample group. The instrument was piloted using 8 business owners who are not be part of the sample before they are administered. From the piloted instruments, reliability is being determined. Data reliability, which is a measure of internal consistency and average correlation, is measured using Cronbach's alpha coefficient that ranges between zero and one (Kipkebut, 2010) .Higher alpha coefficient values means there is consistency among the items in measuring the concept of interest. As a rule of thumb acceptable alpha should be at least 0.60 and above (Hair *et al.*, 2006).

FINDINGS

The aim of this study was to find out the effect of microfinance credit on MSMEs financial performance.

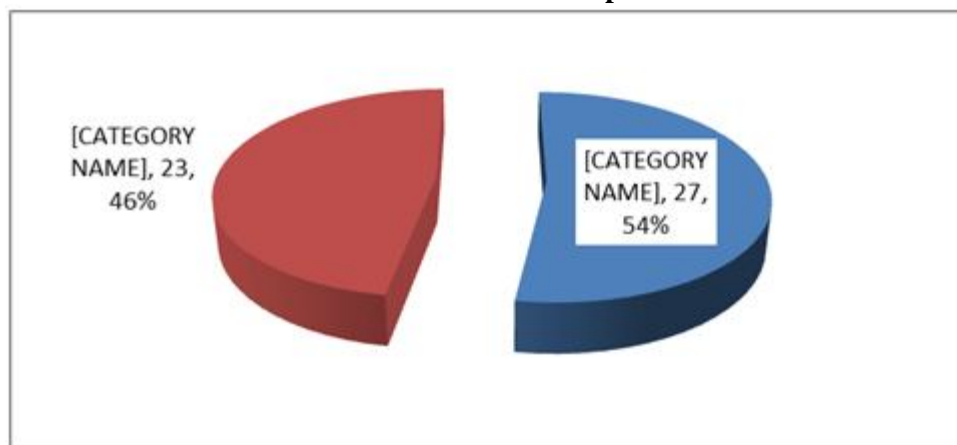
4.1 Demographic Data of the Respondents

The entrepreneurs were asked to indicate their gender, age bracket, educational background and work experience on the questionnaire.

4.1.1 Gender of the respondents

In order to know the population of the research demographic presentation were used, the Results showed that 27(54%) of the entrepreneurs were male, while 23 (46%) were female. The low number of female entrepreneurs is attributed to the attitude of the locals towards access to credit.

FIGURE4. 1: Gender of respondents



Source: Primary data, February 2018

4.1.2 Age bracket of the respondents

Results also showed that entrepreneurs 14(28%) were less than 30 years, 24 (48%) were 30-40 years, 9 (18%) were 41-50 years, while only 3 (6%) reported to be 51 years and above. This implies that all categories of entrepreneurs were involved in answering the study research questions.

Table 4. 1: Age bracket of the respondents

Category	Frequency	Percent
Less than 30 years	14	28.0
30-40 Years	24	48.0
41-50 Years	9	18.0
51 years and above	3	6.0
Total	50	100.0

Source: Primary data, February 2018

4.1.3 Marital status of the respondents

The results showed that 29(58%) of the respondents are married, 16 (32%) are single, 0(0%) are divorced none of respondents is divorced, 5(10%) are widows (ers). This shows that most of entrepreneurs are married in this study.

Table 4. 2: Marital status of the respondents

Category	Frequency	Percent
Married	29	58.0
Single	16	32.0
Divorced	0	0.0
Widow(er)	5	10.0
Total	50	100.0

Source: Primary data, February 2018

4.1.4 Academic qualifications of the respondents

The findings showed that the respondents are divided into 4 categories such as primary level, secondary level, bachelor's degree and others. Hence 7(14%) have primary level, 31(62%) have secondary level, 9(18%) have bachelor's degree, and 3(6%) have other level, this implies that most entrepreneurs have secondary level in this study.

Table 4. 3: Academic qualifications of the respondents

Category	Frequency	Percent
Primary level	7	14.0
Secondary level	31	62.0
Bachelor's degree	9	18.0
Others	3	6.0
Total	50	100.0

Source: Primary data, February 2018

4.2 Analysis of the results

This part concerns the analysis of the results on the effect of microfinance credit on the financial performance of MSMEs in Muhanga district, Rwanda.

4.2.1 Types of the business of the respondents

The Results showed that 4 (8%) of the MSMEs are restaurant, 4 (8%) are welders, 7 (14%) MSMEs are carpentry, 4 (8%) are mechanics, 13 (26%) are Tailoring, 9 (18%) are hairdressers, while 9 (18%) are vegetables sellers. In this study Tailoring, hairdressing and vegetable selling MSMEs had many respondents compared to others MSMEs because in Muhanga district there are many hairdressers and many vegetable sellers.

Table 4. 4: Types of the business of the respondents

Category	Frequency	Percent
Restaurant	4	8.0
Welders	4	8.0
Carpentry	7	14.0
Mechanics	4	8.0
Tailoring	13	26.0
Hairdressers	9	18.0
Vegetable sellers	9	18.0
Total	50	100.0

Source: Primary data, February 2018

4.2.2 Experience of the Respondents

Results also showed entrepreneurs experience, 15(30%) have less than 2 years of experience, 18 (36%) have 2-5 years of experience, 11(22%) have 6-8 years of experience, while 6 (12%) reported to have above 8 years of experience. This implies that most entrepreneurs have two and above years of experience.

Table 4. 5: Experience of the Respondents

Category	Frequency	Percent
Less than 2 Years	15	30.0
2 - 5 Years	18	36.0
6 - 8 Years	11	22.0
Above 8 Years	6	12.0
Total	50	100.0

Source: Primary data, February 2018

4.2.3 Ownership of the Business

The Results showed that 47 (94%) of the entrepreneurs were the owners of the businesses, while 3 (4%) were not the owners, they are employees. In this study the respondents were almost the owners of businesses.

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Table 4. 6: Ownership of the Business

Category	Frequency	Percent
Yes	47	94.0
No	3	6.0
Total	50	100.0

Source: Primary data, February 2018

4.2.4 Knowledge of Microfinance Institutions

The findings indicated that 48 (96%) entrepreneurs knew microfinance institutions, 1(2%) entrepreneur does not knew microfinance institutions, while also 1(2%) is not sure, in this study most of the respondents knew microfinance institutions.

Table 4. 7: Knowledge of Microfinance Institutions

Category	Frequency	Percent
Yes	48	96.0
No	1	2.0
Not sure	1	2.0
Total	50	100.0

Source: Primary data, February 2018

4.2.5 Having an account in Microfinance Institutions

The findings indicated that 43 (86%) entrepreneurs had an account in microfinance institutions, while 7 (14%) entrepreneurs did not have an account in Microfinance Institutions, they have accounts in commercial banks, but in this study also most of the respondents had an account in microfinance institutions.

Table 4. 8: Having an account in Microfinance Institutions

Category	Frequency	Percent
Yes	43	86.0
No	7	14.0
Total	50	100.0

Source: Primary data, February 2018

4.2.6 Application of a credit in Microfinance Institution

The results showed that 38 (76%) entrepreneurs applied for a credit in microfinance institutions, while 12 (24%) entrepreneurs did not apply for a credit in Microfinance Institutions, seven of them have accounts in commercial while other five entrepreneurs have accounts in Microfinance institution but they didn't apply for a credit, in this study most of the respondents applied for a credit in microfinance institutions.

Table 4. 9: Application of a credit in Microfinance Institution

Category	Frequency	Percent
Yes	38	76.0
No	12	24.0
Total	50	100.0

Source: Primary data, February 2018

4.2.7 Receiving a credit from Microfinance Institution

The results showed that 36 (72%) MSMEs received a credit from microfinance institutions, while 14 (28%) MSMEs did not receive a credit from Microfinance Institutions, There are two MSMEs who applied but they did not receive a credit because of missing some requirements such as collaterals, security deposit (*dépôts de garantie "French"*), insufficient deposits and repayment capacity.

Table 4. 10: Receiving a credit from Microfinance Institution

Category	Frequency	Percent
Yes	36	72.0
No	14	28.0
Total	50	100.0

Source: Primary data, February 2018

4.2.8 How easy was it to access this credit from the Microfinance?

The findings showed that 9(18%) received a credit from microfinance very easy, 21(42%) MSMEs received a credit moderately easy, 4(8%) MSMEs received credit with some difficulties, 2(4%) MSMEs received credits very difficultly, 14(28%) entrepreneurs did not receive credits from Microfinance institutions they did not answer this question but some of them said it is easy but the credit ceiling is a problem. This implies that Microfinance institutions do not complicate the process of credit to MSMEs as it is shown by the findings, when MSMEs have all requirements the process is easy.

Table 4. 11: How easy was it to access this credit from the Microfinance?

Category	Frequency	Percent
Very easy	9	18.0
Moderately easy	21	42.0
With some difficulties	4	8.0
Very difficult	2	4.0
Neutral	14	28.0
Total	50	100.0

Source: Primary data, February 2018

4.2.9 How long does it take to receive the credit?

The findings showed that 0(0.0%) MSMEs receive microfinance credit in less than 2 weeks, 31(62%) received a credit from microfinance institutions between 2-3 weeks period, 4(8%) entrepreneurs received a credit from microfinance institution in one month, 1(2%) entrepreneur received a credit from microfinance institution in period of over one month, 14(28%) entrepreneurs did not receive credits from Microfinance institutions, this implies that Microfinance institutions credit process is 2-3 weeks to MSMEs. Evidently none of the respondents take less than two weeks to access credit facility from the MFIs; this may be due to the documentation and authentication of documents associated with the accessing of credit facilities such as mortgage registration, notifying contracts, and other certificates.

Table 4. 12: Period takes to Access Credit

Category	Frequency	Percent
Less than 2 weeks	0	0.0
2 - 3 weeks	31	62.0
1 Month	4	8.0
Over one month	1	2.0
Neutral	14	28.0
Total	50	100.0

Source: Primary data, February 2018

4.2.10 How often do you apply for a credit?

The Results showed that 13(26%) entrepreneurs do not apply for a credit from microfinance institutions often, 16(32%) entrepreneurs apply for a credit from microfinance institutions often, 7(14%) MSMEs apply for a credit from microfinance institutions very often, 14(28%) MSMEs did not apply for credit from Microfinance institutions, this also implies that MSMEs apply for a credit from microfinance institutions often. And those who apply for credit very often they usually use overdraft and short term credits.

Table 4. 13: How often do you apply for a credit?

Category	Frequency	Percent
Not often	13	16.0
Often	16	32.0
Very often	7	14.0
Neutral	14	28.0
Total	50	100.0

Source: Primary data, February 2018

4.2.11 Amount accessed by MSMEs as a credit over the last five years

The findings showed that in **2013** 14 MSMEs accessed the credit; 5 MSMEs accessed less than 500,000 Rwandan francs credit, 6 MSMEs accessed between 500,000-1,000,000 Rwandan francs credit, one of the MSMEs accessed between 3,000,000-4,000,000 Rwandan francs credit,

none of the MSMEs accessed between 2,000,001-3,000,000; 4,000,001 - 5,000,000 and above 5,000,000 credit in **2013**.

In **2014** 16 MSMEs accessed the credit; 3 MSMEs accessed less than 500,000 Rwandan francs credit, 6 MSMEs accessed between 500,000-1,000,000 Rwandan francs credit, 3 MSMEs accessed between 1,000,001 - 2,000,000 Rwandan francs credit, 2 MSMEs accessed between 2,000,001-3,000,000 Rwandan francs credit, 1 of the MSMEs accessed between 3,000,001-4,000,000 Rwandan francs credit, one of the MSMEs accessed between 4,000,001-5,000,000 Rwandan francs credit, none of the MSMEs accessed above 5,000,000 credit in **2014**.

In **2015** 18 MSMEs accessed the credit; 5 MSMEs accessed less than 500,000 Rwandan francs credit, 5 MSMEs accessed between 500,000-1,000,000 Rwandan francs credit, 4 MSMEs accessed between 1,000,001 - 2,000,000 Rwandan francs credit, 3 MSMEs accessed between 2,000,001-3,000,000 Rwandan francs credit, none of the MSMEs accessed between 3,000,001-4,000,000 Rwandan francs credit, one of the MSMEs accessed between 4,000,001-5,000,000 Rwandan francs credit, none of the MSMEs accessed above 5,000,000 credit in **2015**.

In **2016** 23 MSMEs accessed the credit; 4 MSMEs accessed less than 500,000 Rwandan francs credit, 7 MSMEs accessed between 500,000-1,000,000 Rwandan francs credit, 3 MSMEs accessed between 1,000,001 - 2,000,000 Rwandan francs credit, 3 MSMEs accessed between 2,000,001-3,000,000 Rwandan francs credit, 2 of the MSMEs accessed between 3,000,001-4,000,000 Rwandan francs credit, 3 MSMEs accessed between 4,000,001-5,000,000 Rwandan francs credit, one of the MSMEs accessed above 5,000,000 Rwandan francs credit in **2016**.

In **2017** 24 MSMEs accessed the credit; 3 MSMEs accessed less than 500,000 Rwandan francs credit, 9 MSMEs accessed between 500,000-1,000,000 Rwandan francs credit, 5 MSMEs accessed between 1,000,001 - 2,000,000 Rwandan francs credit, 1 of the MSMEs accessed between 2,000,001-3,000,000 Rwandan francs credit, 3 of the MSMEs accessed between 3,000,001-4,000,000 Rwandan francs credit, 1 MSMEs accessed between 4,000,001-5,000,000 Rwandan francs credit, 2 MSMEs accessed above 5,000,000 Rwandan francs credit in **2017**.

From 2013 to 2017 the number of MSMEs accessed credit has increased as it is shown by the table below from 14 MSMEs in 2013 to 24 MSMEs in 2017, over the 5 years; 20 MSMEs accessed less than 500,000 Rwandan Francs credit, 33 MSMEs accessed between 500,000-1,000,000 Rwandan Francs, 17 MSMEs accessed between 1,000,001-2,000,000 Rwandan Francs credit, 9 MSMEs accessed between 2,000,001-3,000,000 Rwandan Francs credit, 7 MSMEs accessed between 3,000,001-4,000,000 Rwandan Francs credit, 6 MSMEs accessed between 4,000,001-5,000,000 Rwandan Francs credit, 3 MSMEs accessed above 5,000,000 Rwandan Francs credit over 5 years. Many MSMEs Accessed between 500,000-1,000,000 as it is shown by the findings, but the amount MSMEs accessed has increased from 2013 to 2017.

Table 4. 14: Amount accessed by MSMEs as a credit over the last five years

Category	2013	2014	2015	2016	2017	Total
Less than 500,000	5	3	5	4	3	20
500,000 - 1,000,000	6	6	5	7	9	33
1,000,001 - 2,000,000	2	3	4	3	5	17
2,000,001 - 3,000,000	0	2	3	3	1	9
3,000,001 - 4,000,000	1	1	0	2	3	7
4,000,001 - 5,000,000	0	1	1	3	1	6
Above 5,000,000	0	0	0	1	2	3
Total	14	16	18	23	24	95

Source: Primary data, February 2018

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4.2.12 Microfinance Credit and return on capital increment

The findings showed that 32(64%) MSMEs strongly agreed that Microfinance credit has increased their capital, while 4(8%) MSME also agreed that Microfinance credit has increased their capital, 14(28%) MSMEs did not receive credits from Microfinance institutions they did not answer this question. This implies that Microfinance credit have a great effect to the financial performance of MSMEs, especially to the return on invested capital increment

Table 4. 15: Microfinance Credit and Return on capital increment

Category	Frequency	Percent
Strongly agree	32	64.0
Agree	4	8.0
Disagree	0	0.0
Strongly disagree	0	0.0
Neutral	14	28.0
Total	50	100.0

Source: Primary data, February 2018

4.2.13 Working capital before microfinance finance credit application

Only 4(8%) MSMEs responded that they had enough working capital before they apply for Microfinance credit, 46(92%) MSMEs responded that they did not have enough capital before they apply for Microfinance credit. Most of MSMEs apply for a credit to increase their working capital because they always want money for purchasing Raw materials and the goods to be sold.

Table 4. 16: working capital before microfinance finance credit application

Category	Frequency	Percent
Yes	4	8.0
No	46	92.0
Total	50	100.0

Source: Primary data, February 2018

4.2.14 Accessibility to Microfinance credit and its influence to the financial performance of MSMEs

The findings showed that 31(62%) MSMEs accessibility to microfinance credit have influenced their financial performance to the very great extent, 3(6%) MSMEs accessibility to microfinance credit have influenced their financial performance to the great extent, while 2(4%) MSMEs accessibility to microfinance credit have influenced their financial performance to the moderate extent, 14(28%) MSMEs didn't answer this question because they didn't access microfinance credit, this implies that Microfinance credit has a meaningful influence to the financial performance of MSMEs.

Table 4. 17: Accessibility to Microfinance credit and its influence to the financial performance of MSMEs

Category	Frequency	Percent
Very great extent	31	62.0
Great extent	3	6.0
Moderate extent	2	4.0
Little extent	0	0.0
Negligible extent	0	0.0
Neutral	14	28.0
Total	50	100.0

Source: Primary data, February 2018

4.2.15 Product diversification after receiving Microfinance credit

According to the table 19, it is apparent that most MSMEs after receiving the Microfinance credit diversified their products range in stocks. 33(66%) MSMEs indicated that they had actually boosted their business by purchasing different products, while only 17(34%) MSMEs indicated that they did not diversified their products range. This can be attributed to the fact that some MSMEs don't use the loan for its intended purpose and in most cases end up failing to repay the loan.

Table 4. 18: Products diversification after receiving Microfinance credit

Category	Frequency	Percent
Yes	33	66.0
No	17	34.0
Total	50	100.0

Source: Primary data, February 2018

4.2.16 Microfinance credit and improvement of financial performance of MSMEs

The findings showed that 32(64%) MSMEs strongly agreed that Microfinance credit has improved their financial performance, while 4(8%) MSME also agreed that Microfinance credit has improved their financial performance, 14(28%) MSMEs did not receive credits from Microfinance institutions they did not answer this question. This implies that Microfinance credit have a great improvement to the financial performance of MSMEs, especially to the capital increment, profitability, working capital increment and return on investment. One of the respondents replied that “Mbere tutaramenya iby’inguzanyo ubucuruzi bwacu bwari hasi cyane nta nyungu twabonaga yewe twanaranguraga bitugoye kandi tukarangura utuntu duke kuburyo kunguka byabaga bigoye ariko nyuma yo gufata inguzanyo ibyo ducuruza byariyongerye kandi tubona inyungu nyinshi ihagije” Before we get microfinance credit our business was not doing well, we didn't make a profit, even purchasing items for resale was very difficult, we purchased few quantities and making a profit was very difficult indeed, however, after receiving microfinance credit we had realized increase in purchasing power and we are now making enough profit.

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Table 4. 19: Microfinance credit and improvement of financial performance of MSMEs

Category	Frequency	Percent
Strongly agree	32	64.0
Agree	4	62.0
Disagree	0	0.0
Strongly disagree	0	0.0
Neutral	14	28.0
Total	50	100.0

Source: Primary data, February 2018

4.2.17 Less popularity of Microfinance credit in Muhanga District

The findings showed that 21(42%) MSMEs responded that Microfinance credit is less popular in Muhanga district because of high interest rate, MFIs interest rate is high it is between 21% and 24% some MSMEs decide to apply for credit in commercial banks where there are fair interest, 11(22%) MSMEs said that Microfinance credit is less popular in Muhanga district because of ceiling level of credit, Microfinance has a ceiling which is between 2 and 10 million Rwandan francs this limits more MSMEs to apply for a credit in MFIs, 2(4%) MSMEs responded that Microfinance credit is less popular in Muhanga district because of complicated credit procedure,

3(6%) MSMEs responded that Microfinance credit is less popular in Muhanga district because of long credit procedure, 13(26%) MSMEs responded that Microfinance credit is less popular in Muhanga district because of reputation of MFIs, some people take MFIs as institutions for low income earners and the institutions of poor services this reputation also has a negative impact to the popularity of Microfinance credit, one of respondents replied that “*abantu ntibakunda ibi bigo by’imali iciriritse kuko bumva ko ari ibyo abakene n’abantu bashaka inguzanyo y’udufaranga duke*” Some people don’t like MFIs they take them as institutions of poor people and those who want micro credits.

Table 4. 20: Less popularity of Microfinance credit in Muhanga District

Category	Frequency	Percent
High interest rate	21	42.0
Ceiling level of credit	11	22.0
Complicated credit procedure	2	4.0
Long credit Procedure	3	6.0
Reputation	13	26.0
Total	50	100.0

Source: Primary data, February 2018

4.2.18 level of satisfaction that MFIs services have contributed to the financial performance

Table 22 is showing that 23(46%) MSMEs said that microfinance credit services contributed to their financial performance most satisfactory, 8(16%) MSMEs said that microfinance credit services contributed to their financial performance very satisfactory, 5(10%) MSMEs said that microfinance credit services contributed to their financial performance most satisfactory. This implies that Microfinance credit have a great improvement to the financial performance of MSMEs, especially to the capital increment, profitability, working capital increment, return on investment, and return on assets.

Microfinance saving contribution to the MSMEs, 17(34%) MSMEs said that access to microfinance savings contributed to their financial performance most satisfactory, 12(24%) MSMEs said that access to microfinance savings contributed to their financial performance very satisfactory, 7(14%) MSMEs said that access to microfinance savings contributed to their financial performance satisfactory, this shows how savings is important to MSMEs in order to improve the financial performance, and sustainable development of MSMEs.

Percentage of MSMEs financial performance, 5(10%) MSMEs rated the percentage of their financial performance most satisfactory, 9(18%) MSMEs rated the percentage of their financial performance very satisfactory, 18(36%) MSMEs rated the percentage of their financial performance satisfactory, 4(8%) MSMEs rated the percentage of their financial performance moderately satisfactory. Most MSMEs rated their percentage satisfactory this implies that microfinance credit contributes a lot to the financial performance of MSMEs but it doesn't bring them to the top level as it is shown by the findings. one of respondents said "*Ubu business iragenda neza rwose ntakibazo gusa ntitutagera kurugero twifuza ariko inguzanyo yaradufashije cyane kuko twateye imbere kandi tubasha kubona inyungu tukanishyura neza inguzanyo, imisoro n'ibindi byose*" Now the business is going on well, there is no problem even if the business is not on the level we want but microfinance credit really helped us we have grown now, we are making profit and we are able to pay our credit, taxes, and other expenses.

Table 4. 21: level of satisfaction that MFIs services have contributed to the financial performance

Note 1 =Less satisfactory; 2=moderately satisfactory; 3= satisfactory; 4=Very satisfactory and 5=Most satisfactory

Category	5	Percent	4	Percent	3	Percent	2	Percent	1	Percent
How satisfied has your access to credit services contributed to your MSMEs financial performance?	23	46.0	8	16.0	5	10.0	0	0.0	0	0.0
How satisfied has your access to savings contributed to your MSMEs financial performance?	17	34.0	12	24.0	7	14.0	0	0.0	0	0.0
What percentage can you Rate your MSMEs Financial Performance?	5	10.0	9	18.0	18	36.0	4	8.0	0	0.0

Source: Primary data, February 2018

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4.3 Test of Hypothesis

4.3.1 Microfinance credit and MSMEs Return on Capital

From the model, R means the correlation coefficient. It shows the relation between the independent variable and the dependent variable. A positive coefficient means that when the independent variable increases, it causes an increase in the dependent variable. Also, a negative coefficient means that an increase in the independent variable leads to a decrease in the dependent variable. The results show that all the value in the correlation coefficient (R) is more than zero. With R being 0.514 means that when MSME receive microfinance credit, its capital increases. The results indicate that the predictor variable of microfinance credit has a significant relationship with the MSMEs Return on capital. Consequently, the null hypothesis was rejected since there is a relationship between microfinance credit and the MSMEs capital.

H₁ There is a relationship between microfinance credit and MSMEs capital

Table 4. 22: Model Summary MSMEs Return on capital				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.514 ^a	0.478	0.421	0.147
a. Predictors: (Constant), MSMEs capital				
<i>Source: Primary data, February 2018</i>				

4.3.2 Financial performance of the MSMEs

The results show that the correlation coefficient (R) is greater than zero. With R being 0.879 means that when microfinance credit increases, the financial performance of MSMEs also increases. The results indicate that the predictor variable of microfinance credit has a positive relationship with financial performance of MSMEs. Consequently, the null hypothesis was rejected.

H₂ There is a relationship between microfinance credit and financial performance of MSMEs.

Table 4. 23: Model Summary Financial performance of the MSMEs				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.879 ^a	0.731	0.711	0.174
a. Predictors: (Constant), Financial performance of the MSMEs,				
<i>Source: Primary data, February 2018</i>				

4.3.3 Growth of MSMEs

The results show that the correlation coefficient (R) is more than zero. With R being 0.787 means that when microfinance credit increases, the growth of MSMEs also increases. The results indicate that the predictor variable of microfinance credit has a positive relationship with the growth of MSMEs. Consequently, the null hypothesis was rejected.

H₃ There is a relationship between microfinance credit and growth of MSMEs

Table 4. 24: Model Summary Growth of MSMEs				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.787 ^a	0.746	0.719	0.183
a. Predictors: (Constant), Grow of MSMEs				
<i>Source: Primary data, February 2018</i>				

4.3.4 Popularity of the microfinance credit

The results show that the correlation coefficient (R) is more than zero. With R being 0.516 means that when microfinance credit increases, the popularity of microfinance credit also increases. The results indicate that the predictor variable of microfinance credit has a strong positive relationship with the popularity of microfinance credit. Consequently, the null hypothesis was rejected

H₄. There is a relationship between microfinance credit and popularity of microfinance credit Muhanga district.

Table 4. 25 : Model Summary Popularity of microfinance credit				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.516 ^a	0.491	0.548	0.224
a. Predictors: (Constant), Popularity of microfinance credit				
<i>Source: Primary data, February 2018</i>				

RESULTS

5.1 Summary

The potential of using institutional credit and other financial services for poverty alleviation in Rwanda is quite significant. Rwandans are generally living healthier and wealthier lives. One of the fastest growing economies in Central Africa, Rwanda notched up GDP growth of around 8% per year between 2001 and 2014 According to (express the news, September 2017).

The MSMEs sector in made up of various sub-sectors such as; trade, Service, Manufacturing, agriculture and other artisan bodies. The research shows that the sector is hugely dominated (62%) by trade which is basically buying and selling. This, the researcher believes, is due to the fact that very little capital is needed to begin and operate such businesses and does not require any regulatory processes. Transacting business with MFIs comes with varying expectations from MSMEs. When respondents were asked of their expectations before transacting with MFIs, it became apparent that, each respondent had his/her own expectation but were all converging to the point of acquiring credit, some of their expectations include: to access prompt credit; to be assured of getting credit on time and as and when needed; to access more funds to expand their business.

The study employed an ex-post facto design. The sample was picked from all business categories in Muhanga district, Rwanda. Yamane formula (1973) was used to arrive at a sample of Fifty (50) Micro, Small and Medium Enterprises. Questionnaire was used as the principle tool for collecting primary data whereas the respondents provided financial statements in the case of secondary data. Data was analyzed using descriptive statistics and multiple regression approach. From the analysis the study revealed the following findings. The study found out that all MSMEs borrow to increase their financial performance

5.2 Conclusions

MFIs are concerned with provision of financial services to people who are economically poor and who therefore experience financial exclusion in that they do not have ready access to mainstream, commercial financial services. It is concerned with provision of financial services to poor people using means which are just, fair and sustainable for example they accept social collateral rather than financial collateral, access to larger amounts of loan if repayment is performance is positive, easy way to access finance in not much paper work, and easy and short procedures. A large number of Muhanga district residents derive their livelihood from the MSMEs. However in spite of the importance of this sector, experience shows that provision and

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delivery of credit services to the sector by formal financial institutions such as commercial banks and MFIs has been below expectation. This means that it is difficult for the poor to move out of poverty due to lack of finance for their productive activities.

The study found that all MSMEs borrow investment capital and they use it for the purpose in which they borrowed for, most of them do not have other source of financing other than from micro-finance institutions and they did not have other form of financing before they started receiving financing from microfinance institutions.

This study reveals that MFIs have a positive effect on the growth of the latter, notwithstanding the inherent challenges. It has been noted that, access to credit which is a major challenge in the MSME sector has been reduced to a large extent through the operations of MFIs. MFIs have also contributed largely in the area of mobilizing savings through their saving schemes that make saving more accessible, less costly and ready to receive little amounts. The habit of saving is enhanced as low income earners who were hitherto unable to save with traditional banks are offered an opportunity to save. The practice helps to improve capitalization as most of these saving are ploughed back in their businesses.

5.3 Recommendations

There is need to provide an enabling environment for MSMEs to grow and thrive, therefore there is a need to develop strategies to enhance increased access to microfinance credit by MSMEs from commercial banks and microfinance institutions. It is important for the government to set up policies that will ease microfinance credit to MSMEs. These policies should be in line with both the owners of MSMEs and financial institutions in order to prevent putting hindrances to potential and credit worthy customers who seek to expand or start up a business. This will create a window for growth and development of the economy as a result of more job opportunities and increased flow of money circulation in the economy. Financial institutions should ensure that they sensitize the owners of MSMEs on best financial management practices. This will help the owners of MSMEs to account for credit borrowed. Lending institutions should also advise borrowers on how to appraise their projects for viability to ensure that they make wise decisions when investing in projects.

The study recommends that MFIs partners with the government and other stakeholders so as to create awareness of the availability and the process of accessing microfinance credit. Since MFIs have poverty alleviation as its vision they should consider lending startup capital so that the welfare of the business and the borrower can be monitored.

The study recommends central bank should set policies and procedures to prevent barriers that inhibit potential owners and managers of MSMEs from accessing credit facilities. This will create a conducive environment for MSMEs to growth and expand. It will also open up opportunities for jobs and this will enhance economic growth. Financial institutions should also provide financial advisory services to individual proprietors when advancing credit to them; lower lending rates while improving service delivery and train people on risk management and financial management. The Government should also regulate financial institutions to ensure that the owners and managers of MSMEs get access to information in order to make the right investment decisions.

5.4 Suggestions for Further Study

This study focused on MSMEs in Muhanga District, Rwanda and therefore the findings of this study cannot be generalized to all the MSMEs in Rwanda. The study recommends that further research could be conducted on MSMEs countrywide to investigate on the effects of microfinance credit on financial performance of MSMEs to find out whether there are

commonalities or unique factors. The concentrated on the MSMEs, it is important to carry out similar study among large enterprises in order to find out the effect of credit on performance of these firms. Further research should also focus on the different aspects of micro financing on the performance of MSMEs;

The role played by government policies on the performance and growth of MSMEs; and The effect of tax administration on performance of MSME's.

For the micro small and micro enterprises sector to grow, small businesses need to link with the rest of the economy. Most of these businesses are so small that creating a link seems almost impossible. Further research should be done in this area to establish the best way of linking Micro, Small and Medium businesses with large companies in the economy.

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REVIEWING THE EFFECTIVENESS OF CORPORATE GOVERNANCE ON COMPANY VALUE IN COMPANIES LISTED IN SECURITIES EXCHANGE OF TEHRAN MOSA BESHROUTAN MA ACCOUNTING

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ABSTRACT

The purpose of this research was examining corporate governance and company value in listed companies in exchange market of Tehran. In this research, variable cash profit, financial profit and size of the company were used. Therefore, the affect company governance on company value was reviewed through regression patterns with combined data of a 7 year period during 2012 to 2018 on companies listed in Tehran Stock Exchange. According to collecting data, this research is a descriptive research and the aim is applied. Research results represent that number of board of directors has a negative and independence of board of directors has a positive impact on company value.

Keywords: *company governance, company value, the independence of the board of directors, institutional shareholders.*

INTRODUCTION

The main subject of corporate governance literature was a deputation conflict between stockholders and management until the 1980s. Generally, this was accepted by everyone that ownership focus causes decline of deputation problems and this concept itself will cause recovery and function and value of company. Researchers vindicate this element in this way that increasing ownership will cause entering stockholders into ownership of companies. These stockholders have enough impetus and power to supervise managers. Supervising them will cause managers step towards long-term goals of company. Enron and WorldCom disgraces caused that many researches accomplish in the context of corporate governance and scrutinize the effect corporate governance on company value function in 2002.

Corporate governance as a making nearer element between management and stockholders is accomplished in declining revenue repugnance between management and stockholders. Hasan Yeganeh (2011) and also Sabli (2012) haven't found a relation between corporate governance and company value. Khodadadi (2012) and Hasan zadeh brothers (2012) in their research have deduced positive significant relationship between corporate governance and company value. According to mentioned points, this research intends to answer this question that does corporate governance have any effect on company value in securities exchange companies in Tehran? If there is an impact between variables, how much is the magnitude?

2. RESEARCH LITERATURE

If corporate governance is accomplished effectively, it will account a remote control for management behavior in appropriation for organization resources and based on level of success, shareholders will maximize returns on capital. Therefore, inefficient enterprise that is the result of feeblish corporate governance, has an effect on company profitability and following that, company value (Isshaq et al, 2009). An idealistic governance system increases the possibility of freely and fortune decision for commercial unity and leads it towards company value recovery (Chen, 2008).

Chang et al (2013) accomplished a research titled "Proceeds, Institutional investors, Tax fund and Company value" during 2011 to 2015 in 336 Chinese and Taiwanese companies in Taiwan

and got this result that operational income in country of origin and investiture income have a direct and significant correlation with company value. Tax disputes in Taiwan and china have caused creating transitional price and consequently, tax planning.

Abdul Wahab and Holland (2012) have accomplished a research regarding to tax planning subject, corporate governance and stock value that discovered a negative significant relation among tax planning and company value and absence of relationship between corporate governance and company value.

Bowman et al (2007) have worked on scrutiny of relationship between strategy level and increasing value in Britain and accounted tax management as one of five cases in company augmenting and this is against recent researches regarding to planning and managing tax (Abdul Wahab 2012).

Mashayekhi and Panah Sabri (2015) have worked on strategic effect on relationship between elude from tax and company value. For accomplishing his research, data of 96 listed companies have been studies in securities exchange as research sample. Research results represent a positive relationship or in other words, confirmation of value creation theory in correlation with elude from tax activities and company value.

Hasan Zadeh et al (2012) have worked on scrutiny of relationship among some corporate governance mechanism with created value for stockholders and economic value added and its results were discovered negative relationship between amount of dominance and ownership of government with company value and significant relationship among amount of free floating stock with company value and significant relationship among the three features of corporate governance (dominance and ownership of government, institutional stock holders and amount of free floating stock), negative significant relationship among amount of dominance and ownership government with economic and positive significant among amount of ownership of institutional stockholders and amount of free floating stock with economic value added.

Khodadadi et al (2012) have worked on a research titled "Effect of corporate governance structure on financial function and listed companies value in securities exchange of Tehran that they used data of 80 exchange companies during 2009 to 2010 and concluded that ownership focus and governance ownership have positive significant relationship with companies value and major institutional investor have a positive relationship with company value and negative relationship with company function.

Demuri et al (2011) have worked on scrutiny of relationship among three elements of coordinate profit, quality of profit and value of companies in accepted companies in securities exchange of Tehran that its results was without regarding to profit coordinating and positive relationship between profit quality and company value and without regarding to profit quality and positive relationship between coordinate and company value.

Hassan Yeganeh et al (2011) found out with regarding to relationship between corporate governance and created value for shareholders subject there is no significant relationship between corporate governance and stock value and they illustrated market inefficiency, problems in business law and institutional stockholders inactivity as their reasons.

In a research titled "Increasing chances effect on relationship among fund, dividend, and ownership structure with value company among 110 exchange companies during 2003 to 2008 Sinai et al (2011) discovered that there is significant relationship among fund structure (leverage) and dividend with company value and in the context of increasing opportunities, this relationship is negative and significant but, without it, it will be positive and significant.

3. RESEARCH METHODOLOGY

The purpose is applied and descriptive. Solidarity is accomplished usually by analyzing regression, in order to scrutinize relationship patterning among variables. Statistical community of this research is all the companies listed in securities exchange of Tehran during 2011 to 2015. In order to choose statistic sample, systematic method of knocking out has been used. By applying filters, 182 companies were capable of collecting data by putting this number into Morgan and Korjesi table.

Research Variables

A: Independent variables: Corporate governance

1. The number of the board of directors: The number of present members in board of directors evaluate.

2. Independence of managers (non-executive managers): This variable represents proportion of non-obligated members of board of directors to total members of it. Non-obligated managers, is a part-time member who has no executive responsibility in company.

3. Institutional ownership percentage:

According description represented and used by Rubin (2007) and Cueto (2009) researches, in order to calculate amount of institutional ownership, the sum of stocks in possession of banks and insurances, stocks, investiture companies, retirement funds, capital supply companies and investment funds, governmental agencies and institutions and companies on total diffuse stock of company, percentage or amount of institutional ownership is obtained.

B: Dependent Variables: Company value

Kyoto Bin, is one of the assessment index of company value that is obtained from the following equation:

Net current liabilities of the company + long-term debt value + stock market value

TOBINS_Q=-----

Total value of corporate assets

C: Controlled Variables

Cash profit: Ratio of paid profit in annual assembly of company to all corporate assets.

Financial Leverage: Proportion of total liabilities divided into sum of assets at the end of session.

Size of the company: Sum of the current and non-current assets of company at the end of session.

Research Hypotheses

First hypothesis: There is a significant relationship between the number of board of directors and company value in securities exchange companies of Tehran.

Second hypothesis: There is a significant relationship between independence of members of board of directors and company value in securities exchange companies of Tehran.

Third hypothesis: There is a significant relationship between institutional ownership percentage and company value in securities exchange companies of Tehran.

4. Experiential results and data analysis

In order to have a better understanding of matter of society which has been studied and more introduction with research variables, it's necessary to describe these data before analyzing statistic data.

Table (2) represents types of features owned by research variables. Statistic reported include indexes and central criteria including: Mediocrity, Median, Maximum, Minimum, and Deviation are consequently 0.94, 0.66, 7.66, 1.50, and 1.79.

Table (2): Descriptive statistic variables of research

Variable	Deviation	Minimum	Maximum	Median	Mediocrity	ervations
MVE :Company value(Kyoto Bin)	0.9486	0.6620	7.6658	1.5011	1.7995	595
NB : (Size of the board of directors)	0.5046	5.0000	9.0000	5.0000	5.1220	595
IND : (Independence of board of directors)	0.2127	0.0000	1.0000	0.6000	0.65	595
IOWN : (Institutional ownership)	0.3298	0.0000	0.9656	0.4433	0.4523	595
DPS : (Paid cash profit)	0.00208	0.0000	0.02264	0.00018	0.00086	595
LEV : (Financial leverage)	0.2276	0.1100	1.9400	0.5436	0.55	595
SIZE : (Size of the company)	0.6436	4.5000	8.3000	6.0883	6.1559	595

According to the results of this test, some decisions will be made about rejection or approval of equality hypothesis for specific fixed works of companies and eventually, about choosing classical or panel data method. Table (3) indicates Chow test results (F statistic) relating to mentioned hypothesis about research patterns.

Table (3): F-Limer test results for choosing combined method (Pooling) or integrative (panel)

Zero hypothesis (H0)	Statistic	Freedom degree	p-value	Test results
Company specific effects aren't significant (Pooling method is sufficient)	23.7878	117	0.0000	H0 is refused (panel data method is chosen)

As it is seen in table (3), in 95 percent confidence level research model for zero hypothesis is rejected; therefore we need to use data panel method. As a result discussion over choosing among stable and random effects models happens and for this purpose Hausman test is used.

Table (4): Hausman test results for choosing between stable effect model and accidental effects

Zero hypothesis (H0)	Freedom degree	X ² statistic	p-value	Test results
The deviations are the same	7	70.6116	0.0000	H0 is refused (There is inequality of deviations)

The results of the above table represents that in research model stable effects method should be used. In this research, for scrutinize existing variance inequality problems Breusch Pagan-cook and Weisberg test were used.

Table (5): Breusch Pagan-Cook and Weisberg test for discovering variance inequality

Zero hypothesis (H0)	X ² statistic breusch pagan-kuk and weisberg	p-value	Test results
The variances are the same	1100.56	0.0000	H0 is refused (There is variances inequality)

According to the results of this test that were presented in table number (5), there is variance inequality for problem research model (because accounted possibility or p-value is less than 0.05).Therefore, the last estimation model is accomplished by using GLS test so that variance equality assumption in analyzing regression remains stable and variance inequality problem is solved consequently.

The results of research model calculation are as follows:

$$MVE_{it} = B_0 + B_1NB_{it} + B_2IND_{it} + B_3IOWN_{it} + B_4DPS_{it} + B_5LEV_{it} + B_6SIZE_{it} + E_{it}$$

Variable	Factors	Deviation	T statistic	Significant level (p-value)	VIF TEST
B0 (width from origin)	-2.8434	0.2787	-10.2040	0.0000	-----
NB (Size of board of directors)	-0.2162	0.0744	-2.9037	0.0038	1.04
IND (Independence of the board)	0.8842	0.0889	9.9433	0.0000	1.07
IOWN (institutional ownership)	0.0003	0.0003	1.1788	0.2389	1.13
DPS (Paid cash profit)	0.5547	0.1435	3.8651	0.0001	1.13
LEV (Financial leverage)	-0.4897	0.0405	-12.0917	0.0000	1.11
SIZE (Size of the company)	0.5522	0.0542	10.1888	0.0000	1.09
F-Fisher statistic	69.0422	Significant level	of F statistic	0.0000	0.0000
The coefficient of determination	0.6537	Camera-Watson statistic		1.5538	

The results of hypotheses:

Results of the first hypotheses: Stable calculation variable factor of size of the board in the above table is representation of negative and significant effect of size of board of directors on company value in error level of 0.05.

So, H0 assumption is rejected and H1 assumption is accepted. Therefore, it can be said that size of the board have %95 negative significant effect on certainty level.

The results of the second hypothesis:

Coefficients estimated for independent variables of members of board of directors in table above shows positive and significant effect of independence of them on company value is in 0.05 error level; because the amount of calculated p-value for this stable research variable, has obtained less than 0.05. Therefore, H0 assumption is rejected and H1 assumption is accepted. So, it can be said that independence of board members on company value has %95 positive and significant effect on certainty level.

The results if the third hypothesis:

Calculated coefficient of independent variable of institutional ownership in the above table is a representation of significant inefficiency of institutional ownership on company value that is 0.05 on certainty level. So, H0 assumption is accepted and H1 assumption is rejected. Therefore, it can be said that institutional ownership on company value has no %95 significant effect on certainty level.

Also, coefficient estimated for controllable variable of financial leverage in %95 level has negative and significant effect on company value and coefficient of controllable variables in company size and cash profit paid indicated significant and positive effect on company value that has 0.05 error level.

5. CONCLUSION

This research was reviewed through regression model fitness by means of panel data during a five-year-period from 2011 to 2015 on productive companies listed in Tehran Stock Exchange and the effect of corporate governance on company value was examined that eventually the results are as follows.

Results showed that members of board of directors on company value in confidence level of 95% has a negative and significant effect which is -0.21, this means that if members increase to %100, company value will reduce to %21. The effect of members of the board effected (-0.21) on company value shows that this effect is reverse; it means that the number of the board of directors causes declining of company value. The results of the research confirm with research of Poor Hashem et al. (2013). Also, independence of members of the board has %95 positive and significant effect on company value on certainty level and factor of this affection is very forceful and %88%. It means that if independence of members of the board increase to 88%, company value will increase to %88; this means that independence of members of the board causes increasing the company value. The research results confirm research of Hassan Zadeh brothers (2012) and Sediqi (2012). Also institutional ownership percentage on company value in 95% confidence level has no significant effect.

According to discoveries of this research and negative affection of members of the board on company value it is suggested to use only a fewer board of directors according to business law. Also, stable and non-obligated managers supervise on processes and company activities, they need to improve their responsibly and to achieve other corporate governance goals which consequently leads to increase of company value. It's recommended to deploy more non-obligated and non-executive managers in the board of directors.

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THE DETERMINANTS OF FOREIGN DIRECT INVESTMENT INFLOWS IN NIGERIA: ARDL AND BOUND TEST APPROACH

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ABSTRACT

The aim of this study is to examine the critical macroeconomic variables that determine the inflows of FDI in Nigeria over the period of 1990 to 2017 which past studies have not fully explored. Consequently, the study utilized data from UNCTAD, World Bank database and CBN Statistical Bulletin and the Autoregressive Distributed Lag (ARDL) model was used to address the objective of this study. However, the following are the crucial findings that originated from this study. The principal determinants of FDI inflows in Nigeria are the past FDI inflows, market size, exchange rate and growth rate. These macroeconomic variables have a positive and significant impact in driving FDI inflows in Nigeria. However, the inflation rate discourages FDI inflows in the country. Moreover, based on these findings, it is important for this paper to make the following recommendations for both the policy makers and the investors in Nigeria. The policy makers in the country should be committed towards policy measures that will ensure the continuous expansion of the country's market size, double digits growth rate and exchange rate stability. In the same vein, the policy measures that would address inflation rate problem on FDI inflows in the country should be put in place by the policy makers in Nigeria.

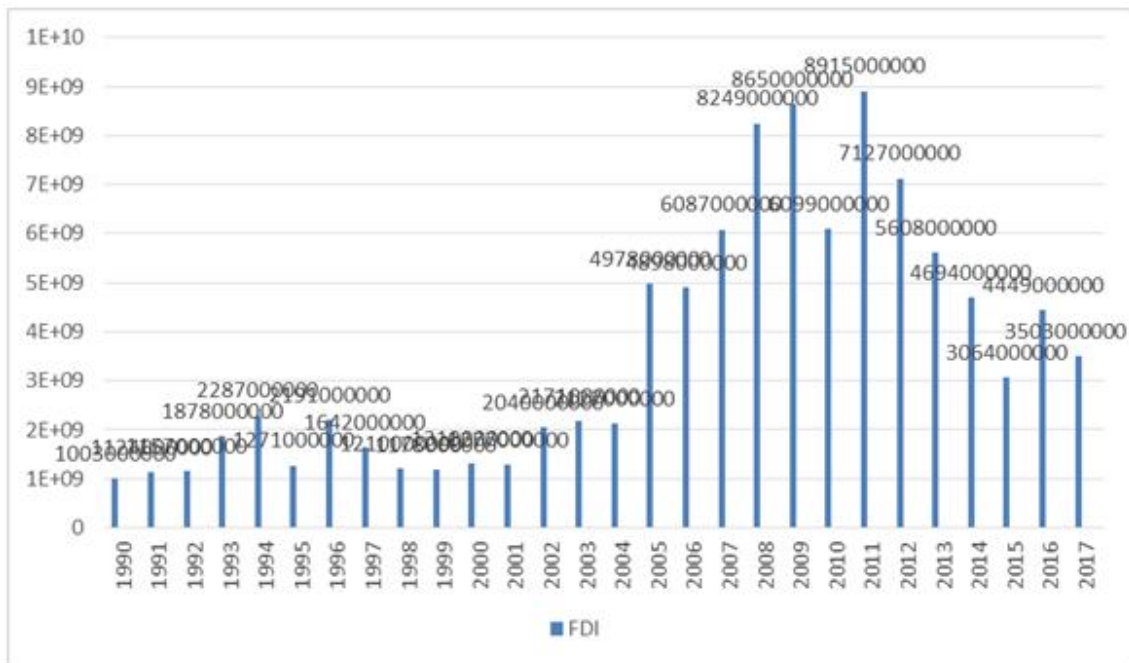
Keywords: FDI, Market Size, Growth Rate, Exchange Rate and Nigeria

JEL Classification: F21, F23, F43,

INTRODUCTION

In the recent times, the developing countries of Africa have not been able to be on the same pace in attracting FDI inflows like their counterparts in the Asian continent. In 2017, a total FDI inflows of \$42 billion came into Africa, which is 21% reduction of 2016 inflows. The reason for this sharp fall among other factors has been attributed to the perpetual declining in oil prices in one hand and unfavorable conditions of macroeconomic variables in the bulk of host African nations on the other hand (UNCTAD, 2018).

However, in the past few decades, foreign direct investment inflows have contributed to about 20% of fixed capital formation in the continent of Africa, but it continues to be positively skewed in the favour of 15 oil-rich countries which accounted for 75% of FDI inflows (AfDB et al, 2011). Nigeria is the highest oil exporter in Africa, little wonder the country has attracted a substantial stock of FDI inflows over the time. In 2006, the UNCTAD Report indicates that 70% of FDI inflow in ECOWAS countries was received by Nigeria.

Figure 1: FDI Inflows in Nigeria (1990-2017)

Source: Authors' Computation (2019) from (UNCTAD, 2018)

The above figure shows that the sporadic FDI inflows began in 2005 in which the figure got to the pinnacle in 2011 before it declined in 2012. From 2012 FDI inflows have been dwindling on the annual basis in the country. Meanwhile, many factors have been affirmed to propel FDI inflows in developing countries, such as sound investment policies and appropriate institution (Samol and Solifano, 2014). Other scholars like Jadhav (2012), Jadhav and Katti (2012), and Vijayakumar et al. (2010) Sahoo (2006) and Nonnenberg and Mendonca (2004) have argued that low labour cost, domestic market size, infrastructure, gross capital formation, governance efficiency and regulatory quality openness to trade, and rule of law have been the critical variables behind the inflows of FDI in developing economies. But, in the case of Nigeria the literature has divided opinions in which calls for further investigation about the variables that determine the inflow of FDI in Nigeria. For instance, Enoma and Mustafa (2011) attributed the inflows of FDI in Nigeria to the advent of crude oil. However, market size, export, past FDI and wage rates have been recognized as the motivating factors for FDI inflows in the country. See (Offiong and Atsu, 2014; UNECA, 2009; Ayanwale, 2007). In the light of the above argument it is pertinent to empirically revalidate the important variables that determine the Inflows of FDI in Nigeria in the recent time. In addition, this study adopts latest econometric technique in addressing its objective in which bulk of recent studies have undermined. The rest of the study is organized in this way; apart from introduction, the section two reviews the relevant theoretical and empirical literature. Meanwhile, methodology, empirical results and policy recommendation are presented in section three.

2.0 LITERATURE REVIEW

2.1 Theoretical Review

2.2 The Internationalization Theory

According to Dima (2010), internationalization can be conceptualized as a way by which a firm moves its operations beyond the boundaries of the home country. This involves the gradual

acquisition, integration and utilization of knowledge about the operations of foreign markets, this leads to the steady commitments of this firm to foreign markets (Johanson & Vahlne 1977).

It is important to state that the Internationalization Theory originally emanated from the work of Coase (1937), who posited that transaction costs are fundamental factors to the success of a firm. Consequently, Johanson and Wiedersheim-Paul (1975) extended the frontiers of the Internationalization Theory with two main observations of four firms located in Sweden. As a matter of fact the earlier studies did not factor competition as a barrier to the entry of the firm coming from other country as a result of psychological distance. As a result of this during the study, assumptions were made. The first assumption was that the enterprise first develops in the home country after which the subsidiaries could be introduced into international platform on a series of incremental decisions. In the same vein, the imperfect competition emanated from the lack of knowledge constitutes an obstacle to internationalization. This obstacles are overcome through incremental decision making and learning from foreign markets. Moreover, perceived risk bring about a reduction investments in the foreign market, but the need to control sales is stimulated by internationalization while existing demand in a foreign market bring about an increment in international operations. However, firms start to export to neighbouring countries or countries which have a comparative similarity in business practice. Finally, the enterprise starts selling abroad via independent agents. At some point home countries could be best environment for MNEs but when conditions are favourable abroad, it is pertinent that subsidiaries are established. In this respect, the favourable investment conditions can explain FDI inflows in the case of developing nations such as Nigeria.

2.3 Market Size Theory

The FDI Market Size Theory could be linked to Bandera and White (1968). Consequently, it was later popularized by the works of scholars such as Asiedu (2006) and Mughal and Akram (2011). The argument put forward by these scholars was that the motivation behind efficiency seeking FDI was the size of the market, which could be operationally defined as a firm's sales or GDP. The bone of contention here is that even if prices do not rise but markets expand, holding all other factors constant the returns of enterprises will steadily expand. Expansion of GDP brings about rise in GDP per capita and welfare. This justifies why large quantum of FDI flows to countries such as China, India and Pakistan largely due to high population, despite lower GDP per capita. Ditto for Nigeria which dominates ECOWAS sub region as a result of its large population.

2.0 Empirical Review

In this section, effort has been made to review studies on FDI inflows in Africa in general and Nigeria in particular.

Adeyeye, Akinuli and Ayodele (2016) utilizes an Error Correction Model approach to investigate the nexus between spending on security and inflows of FDI in Nigeria spanning from 1985 to 2015. The estimated results in the study argue that the expenditure on security and inflation are inversely related with FDI. But spending on defense and the inflows of FDI have a direct relationship in the long run in Nigeria. In a related paper, Aderemi et al (2018) adopt Dynamic Ordinary Least Square and granger causality to examine the link between security spending and foreign direct investment inflows in Nigeria from 1994 to 2016. It was discovered from the study that a positive link exists between the internal security spending and FDI inflows in Nigeria in one hand and bidirectional causality flows from defense spending to FDI inflows in the country. Samol and Solifano (2014) attribute a strategic determinant of inflows of foreign direct investment to government fiscal deficit/surplus. In another perspective, Isam (2010) identified the availability of security, infrastructure and economic performance as the primary

factors that usually motivate investment decision of foreign investors. But, the author pinpoints factors such as political instability, unstable exchange rate, economic performance and unpredictable inflation as enemies of foreign investment. While examining the nexus between exchange rate uncertainty and foreign direct investment the Nigerian economy, Olumuyiwa (2003) submits that there is an existence of inverse relationship between exchange rate and foreign direct investment in Nigeria. Exchange rate is also tagged as a vital driver of economic activities in Nigeria.

Furthermore, Gui-Diby (2014) uses GMM Technique in investigating the relationship between FDI and economic growth in 50 African nations from 1980 to 1994. It was reported from the study that an inverse linkage exists between FDI and economic growth in 1980 to 1994. Whereas reverse is the case from 1995 to 2009. However, the positive impact in the latter period is linked with the significant improvement in the business environment and the multiplier effect of export on the economies. Mahmood et al (2010) applies Econometrics technique to estimate the relationship between economic freedom and economic growth in SAARC Member Countries. The authors find out that an inverse correlation between government size and growth, but financial, trade, investment, business, property rights, and freedom from corruption have a direct link with growth

Azman-Saini, Baharumshah, and Law (2010) employs an Econometrics approach to estimate the linkage between systemic, foreign direct investment, economic freedom and economic growth. The paper discovers that foreign direct investment and economic growth have an indirect positive relationship. Meanwhile, the impact of FDI is contingent on the level of economic freedom in the host countries. This shows that the higher the level of economic freedom a country possesses the greater benefits from the inflows of cross border capital.

In addition, Saibu and Akinbobola (2014) utilizes a Vector Error Correction Modeling (VECM) to analyze the relationship between globalization, FDI and economic growth in some selected Sub Saharan African nations. The paper submits that trade liberalization and economic growth process have an insignificant relationship in SSA nations. Meanwhile, the upsurge in the capital flows to African nations is not sufficient to prevent the African economies from the global economic shocks.

Finally, the reviewed of the empirical studies show that studies on FDI inflows and other macroeconomic variables are ongoing in Nigeria, and the literature is yet to reach a consensus regarding this relationship. Hence, the relevance of this study

3.0 METHODOLOGY

This study utilizes secondary data from 1990 to 2017 for the analysis. Data on FDI inflows were extracted from UNCTAD database published by the World Bank. Meanwhile, data on other macroeconomic variables were extracted from CBN statistical bulletin

3.1 Model Specification

$$FDI_{infl} = F(MkT, GrT, GDP/CA, Exch, Infl,) \text{ ----- (I)}$$

If the model (I) is log linearized, it results into model (II) as follows

$$\ln FDI_t = \alpha_0 + \alpha_1 \ln MKT_t + \alpha_2 \ln GrT_t + \alpha_3 \ln GDP/CA_t + \alpha_4 \ln Exch_t + \alpha_5 \ln Infl_t + U_t; \text{ ----- (II)}$$

3.2 Estimation Techniques

The study employs Augmented Dickey Fuller (ADF) and Philips-Perron (PP) unit root tests for the stationarity test of the data series and Bound test for testing the long run equilibrium among the variables. Due to different orders of integration of the variables i.e. I(1) and I(0), the paper

utilizes autoregressive lag model to address its objective (Pesaran, Shin and Smith, 2001, Pesaran and Pesaran, 1997).

In a general form, ARDL model can be specified as follows:

$$\text{ARDL (1, 1) model: } Y_t = \mu + \alpha_1 Y_{t-1} + \beta_0 X_t + \beta_1 X_{t-1} + U_t \dots \dots \dots \text{ (III)}$$

Meanwhile, Y_t and X_t are stationary variables, and U_t is a white noise.

Therefore, in an explicit way the model to capture the analysis of this work could be stated thus:

$$\Delta \text{LnFDI}_t = \beta_0 + \sum_{i=1}^p \beta_1 \Delta \text{LnFDI}_{t-1} + \sum_{i=0}^p \beta_2 \Delta \text{LnMkT}_{t-1} + \sum_{i=0}^p \beta_3 \Delta \text{GDP/CA}_{t-1} + \theta_1 \text{Infl}_{t-1} + \theta_2 \text{Exch}_{t-1} + \theta_3 \text{GrT}_{t-1} + \mu \epsilon \dots \dots \dots \text{ (IV)}$$

Where

FDIinfl is FDI inflows which is measured in millions USD

MkT is used to denote the market size of the economy: the real GDP is used to proxy it and is measured in USD.

GrT denotes the annual growth rate of economy and is measured in percentage

GDP/CA connotes GDP per capita growth, and it defines the rate of the standard of living of people. It is measured in percentage

Infl means inflation rate which measures the general price level in the country.

Exch connotes exchange rate which shows the value of the country's currency vis-à-vis dollar.

U captures error term.

t= 1990-----2017.

β_0 is an intercept and β_1 , β_2 and β_3 are the slope parameters. A priori expectation $\beta_1 > 0$, $\beta_2 > 0$ and $\beta_3 < 0$.

3.2 Result and Discussion

Table 1: Descriptive Statistics of Annual Data Series (1990-2017)

Descriptive Statistics	LMkT	LFDI	GrT	Exch	GDP/CA	INFL
Mean	42.44046	21.74894	5.217857	4.300743	2.532143	18.71679
Median	31.28159	21.52907	4.350000	4.815250	1.650000	12.55000
Maximum	346.1660	22.91100	33.70000	5.857933	30.40000	72.84000
Minimum	30.60445	20.72626	-1.600000	2.084156	-4.200000	5.380000
Std. Deviation	59.52657	0.726565	6.521989	1.061811	6.364779	17.42350
Skewness	5.003169	0.160137	3.070353	-0.709526	3.095979	1.958346
Kurtosis	26.03362	1.593786	14.19066	2.095351	14.33384	5.646040
Jarque-Bera	735.7866	2.426683	190.0958	3.304115	194.5956	26.06566
Probability	0.000000	0.297203	0.000000	0.191655	0.000000	0.000002
Sum	1188.333	608.9704	146.1000	120.4208	70.90000	524.0700
Sum. Sq. Deviation	95672.13	14.25320	1148.481	30.44095	1093.781	8196.619
Observation	28	28	28	28	28	28

Source: Authors' Computation (2019)

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Table 1 shows the descriptive statistics of the data used to proxy variables in this study. The values of mean and median of the variables FDI and other macroeconomic variables are almost the same, apart from market size and inflation rate which show a slight disparity. This shows that the distribution of the data series is fairly symmetrical in nature. The distribution of data series is perfectly symmetrical when the values of mean, mode and median of such data series converge (Karmel and Polasek 1980).

Table 2: Unit Root Test

Variables	ADF Test			PP Test		
	Level	1 st Diff.	Remarks	Level	1 st Diff.	Remarks
LFDI	-2.976263**	-2.981038**	I (1)	-2.976263**	-2.981038**	I (1)
LMkT	-2.976263**		I(0)	-2.976263**		I(0)
INFL	-2.976263**	-2.981038**	I(1)	-2.976263**	-2.981038**	I(1)
GrT	-2.976263**		I(0)	-2.976263**		I(0)
GDP/CA	-2.976263**		I(0)	-2.976263**		I(0)
Exch	-2.976263**	-2.981038**	I (1)	-2.976263**	-2.981038**	I (1)

Source; Authors` Computation (2019)

*** %5 level

Time series data are always associated with the problem of non-stationarity. This could decrease the validity of forecast based on such data. In order to overcome this problem, this study used the standard Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests to examine the stationarity or otherwise of the data in this study. Consequently, the results of the estimated Augmented Dickey-Fuller (ADF) tests shown in the above table clearly indicate that data on the variables such as FDI, inflation rate and exchange rate were not stationary in their native form. However, market size, growth rate and GDP/CA were stationary at level. This implies that the data employed for the econometric analysis in this work are the combination of I(0) and I(1).

Table 3: VAR Lag Order Selection Criteria

Sample: 1990 2017

Included observations: 26

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-333.3539	NA	8752.620	26.10414	26.39447	26.18775
1	-253.1758	117.1833	317.4149	22.70583	24.73814	23.29106
2	-185.6387	67.53712*	46.72637*	20.27990*	24.05419*	21.36676*

* indicates lag order selected by the criterion

Source: Authors` Computation (2019)

Unrestricted Vector Autoregression (VAR) by lag selection criteria was modeled to the time series data in order to determine the optimal number of lags for the model. As shown in Table 3, the lowest value for each estimator falls under lags two (2). Based on the result, SBIC criterion was chosen for the determination of optimum lag length of ARDL model in this study. ARDL (1, 0, 1, 2, 2, and 2) model was selected as a common consequence of the SBIC criterion

Table 4: ARDL Bounds Test

Sample: 1992 2017

Included observations: 26

Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	1.992603	5

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.26	3.35
5%	2.62	3.79
2.5%	2.96	4.18
1%	3.41	4.68

Source: Authors` Computation (2019)

The dataset for this study is a combination of stationarity and non-stationarity data. Therefore, it is expedient to examine the existence or otherwise of the long run equilibrium relationship among these variables using Bound Test. {Pesaran and Pesaran (1997), Pesaran, Shin and Smith (2001)}. The result presented in the above table shows that the Null hypothesis of no long run relationship could not be rejected because the upper and lower Critical Value Bounds at all level of significance is greater than the value of F-Statistic. Hence, there is an absence of cointegrating relationship among the variables in the model. This outcome necessitates the estimation of only short run relationship among these variables.

Table 5: Determinants of FDI Inflows in Nigeria**Dependent Variable: LFDI**

Selected Model: ARDL (1, 0, 1, 2, 2, 2)

Short Run	Coefficient	t-statistics	P-value
LFDI(-1)	0.826875*	4.958138	0.0003
LMkT	0.002316***	1.724045	0.1103
LExch(-1)	0.291146***	1.504789	0.1582
GDP/CA(-2)	-1.991324	1.148074	0.1015
GrT(-2)	1.962638***	1.777834	0.1008
Infl(-2)	-0.026730**	3.483651	0.0045
R-squared	0.948711		
Adjusted R-squared	0.893147		

Source: Authors` computation (2019) ***Significant at 10%, **Significant at 5%, * Significant at 1%

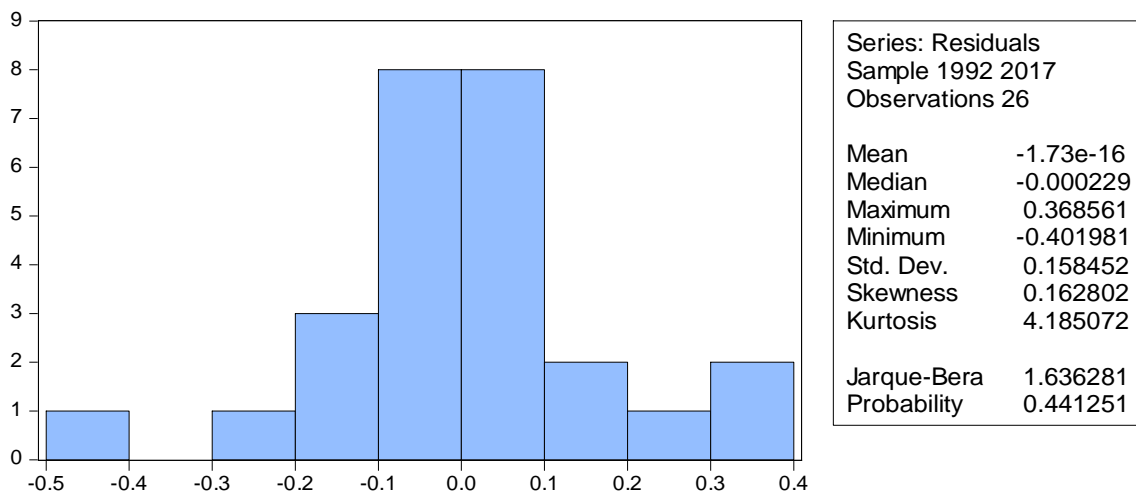
Table 5 presents the ARDL results of the relationship between the FDI and other macroeconomic variables that derive it in Nigeria. It should be noted that it is only GDP/CA that did not follow apriori expectation among all the explanatory variables. The estimated results showed that the first lagged value of dependent variable, FDI(-1) is positive and significant. The implication of this result is that FDI inflow in the previous year brought about an increase in the

level of FDI inflows in the current year. Meanwhile, it could be established that FDI inflows and market size have a direct relationship which is significant at 10% level of significance. A unit change in the market size increases the inflow of FDI by 0.0023% in Nigeria. This result is validated by the submission of Mughal and Akram (2011) and Asiedu (2006) who attributed the inflows of FDI to the size of the market. In the same vein, exchange rate and FDI inflows have a positive relationship which is significant at 10% level of significance. A unit change in exchange rate brings about an increase in the level of FDI by 0.29% in the country. This contradicts the finding of Olumuyiwa (2003) in a related study in Nigeria.

However, GDP/CA has an insignificant negative relationship with FDI inflows. Similarly, inflation rate has a significant inverse relationship with FDI inflows. A unit change in inflation rate reduces FDI inflows by 2.7% in the country

3.3: Diagnostic Tests

Figure 2: Test results for normality



The results in the above figure show that skewness is 0.162802 and kurtosis is 4.185072. Meanwhile, the JB test indicates 1.636281 with a corresponding probability value not significant at 5% critical value. Though kurtosis is indicated to be greater than three, yet the visual graphical display proves that the data are normally distributed. Normality tests are usually confirmed by the JB test. In view of the above, the model is normally distributed and valid.

Table 6: Breusch-Godfrey Serial Correlation LM Test

F-statistic	1.708900	Prob. F(2,10)	0.2299
Obs*R-squared	6.622755	Prob. Chi-Square(2)	0.0365

The results in table7 shows that the observed R-squared Chi-square probability value is not significant at 5% critical values. This justifies the absence of serial correlation in the model

Table 7: Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.822384	Prob. F(13,12)	0.6355
Obs*R-squared	12.25005	Prob. Chi-Square(13)	0.5073
Scaled explained SS	4.155687	Prob. Chi-Square(13)	0.9894

The observed R-square probability values for Breusch-Pagan-Godfrey Test is not significant at 5% critical value. This confirms that the model is homoscedastic and good for economic analysis.

3.4 Conclusion and Recommendations

This study examined the important macroeconomic variables that derive FDI inflows in the short run in Nigeria over the period of 1990 to 2017. The following are the crucial findings that originated from this study. The principal drivers of FDI inflows in Nigeria are past FDI inflows, market size, exchange rate and growth rate. However, the inflation rate discourages FDI inflows in the country. Moreover, based on these findings, this paper makes the following recommendations for both the policy makers and the investors in Nigeria. The policy makers in the country should be committed towards policy measures that will ensure the continuous expansion of the country's market size, double digits growth rate and exchange rate stability. In the same vein, the policy measures that would address inflation rate problem on FDI inflows in the country should be put in place by the policy makers in Nigeria.

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ICT FOR SUSTAINABLE AGRICULTURE IN KARNATAKA- A STUDY IN MYSURU DISTRICT**Dr. H. M. Chandrashekar**

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ABSTRACT

Information is one of the key inputs in agriculture. Providing agricultural information to farmers is primarily vested with the government agencies and is also carried out by private agri-business companies and NGOs. Among the different types of communications/medias accessible for transfer of agricultural information mobile, TV, radio, newspaper, fixed phone and internet are prime ones. In the study, ownership pattern of media reveals that 91.9 per cent of the farmers owned TV connection followed by mobile phone (77.9%) and seems to have decisively edged out radio (26.7%). Though, radio was owned by 26.7 per cent of farmers, but was rarely used. Ownership of newspapers was limited to 7 per cent of farmers, but most of the farmers opined that reading newspapers at the village grocery store or tea shop. Fixed line phones were confined to 3.5 per cent of farm holds. Farmers received agricultural information from a wide range of sources such as District/block level agriculture/horticulture offices, Krishi Vigyan Kendra's, daily local language newspapers, agro portals, television, friends and relatives, helpline, farmers' cooperatives, radio, private input agencies and dealers and mobile phones. Among these, most farmers (61.6%) approached private input dealers followed by Friends, neighbours and relatives (50%) and were also important and reliable sources of information. Despite several constraints, 46.5 per cent of farmers getting information from government agencies, 15 per cent are in touch with Krishi Vigyan Kendra's, 10.5 per cent accessing information from extension activities, 7.0 per cent from newspapers, 4.7 per cent from magazines and only 3.5 per cent of the farmers reported using TV for seeking agricultural information despite high ownership and regular broadcast of agriculture programs. Few farmers (1.2%) were dependent on helplines. Among new ICTs, mobile phones were widely available in the study area but were mostly being used for post-sale inquiry rather than information for increasing production efficiency.

Keywords: *Extension Activities, Mobile Phones, Agricultural Information & ICT tools*

INTRODUCTION

As is true for most sectors, information is one of the key inputs in agriculture. In India, the task of providing agricultural information to farmers is primarily vested with the Public Extension System. A network of the Indian Council of Agricultural Research (ICAR) Institutes, State Agricultural Universities (SAU) and Krishi Vigyan Kendras (KVKs) spread across the country, is responsible for developing, refining and disseminating the latest technologies to farmers. In addition, extension activities are also carried out by state agriculture departments, private agri-business companies and NGOs. Mass mediated broadcasts and telecast supported by trained agricultural extension personnel at the field level form the backbone of the agricultural extension system in India. For example, All India Radio (AIR) in the late 1950s and Doordarshan in 1966. The National Commission on Farmers has noted that knowledge deficits constrain agricultural productivity in India. It also added that the use of Information and Communication Technologies (ICTs) for agricultural extension is one way of addressing the information needs of farmers. With the help of ICTs, agricultural extension is expected to become more diversified, knowledge-intensive and demand-driven and thus more effective meeting farmers' information needs (Zijp, 1994). At present scenario, Mobile, TV, radio,

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newspaper, fixed phone and internet are chief communicating Medias accessible for transfer of agricultural information to farmers. Against this backdrop, this study conducted to know the agricultural information seeking behaviour and the reasons for seeking agricultural information through certain sources/media by the farming community. This present chapter deals with the Karnataka's agriculture profile and performance of ICT tools in Karnataka with respect to agriculture sector. This chapter also reviews on successful ICT programmes in agriculture and allied activities

To achieve this, the strategy adopted includes:

- Encouraging investments in the supply chain infrastructure to reduce postharvest loss.
- Strengthening linkage between processing enterprises and Research & Development institutes.
- Fiscal incentives for setting up focused industrial clusters and food processing parks in potential food clusters.
- Encourage adoption of quality certifications, green and clean practices, energy efficient measures.
- Declaring the entire State as single zone for availing incentives and concessions.

Information & Knowledge Support Centers

Under 2015 policy ICT has been given much importance to enrich the activities in agribusiness. This support shall include website management containing information relevant for agribusiness & food processing sector in Karnataka. The information center shall maintained at abases on agribusiness and food processing enterprises, infrastructure providers, key export destinations from Karnataka, and other such knowledge on agribusiness and food processing in the State. Raitha Samparka Kendras (RSK) / District Industries Centers in Karnataka will be utilised as information centers. Karnataka Agribusiness Development Corporation (KABDC) shall be empowered to empanel consultants who can prepare bankable project reports. The supporting institutions like University of Agriculture Sciences, Horticulture Sciences University, Veterinary Sciences University, National Bank for Agriculture and Rural Development, Central Food Technological Research Institute, Defence Food Research Laboratory and other accredited institutions, etc. shall be pooled to the fold of knowledge center.

OBJECTIVES OF THE STUDY

1. To study the implementation of ICT functions in MYSURU APMC
2. to study the farmers satisfaction towards service provided by APMC.
3. To know the awareness on ICT among farmers in the study area
4. To find out the perception of the farmers about performance
5. of APMC with the usage of ICT.
6. To find out the problems faced by farmers and to suggest solutions for better working.

METHODOLOGY OF THE STUDY

Methodology is the very strong and important foundation for any systematic research or investigation or discovery. Methodology is imperative to give the details of the investigation and method adopted by the researcher or investigator in finding out of exact facts and problems of the work. This paper is a personal practical research one All information and data has been gathered from meeting many kinds of farmers and traders (i.e. interview method) coming to APMC Mysuru to sell their produce and trade. I went through secondary sources like reports,

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web search, journals, news magazine, articles etc. The data collected from basic on performance of various classes of farmers and traders who visited APMC Mysuru in the analysis of data statistical tools have been used to present the data.

The study is based on secondary data taken from published annual reports of APMCs. The published annual reports of APMCs of Mysuru region are collected from the offices of APMCs APMC (Agricultural Produce Marketing Committee). Various publications of the APMCs act as the primary source for the collection of relevant information in this regard. The period considered for study has been for twelve years say from 2001-02 to 2012-2013. Various reports and publication so issued by relevant authorities are used for this purpose. Other information related to the APMCs has been collected from newspapers, journals and from various relevant concerned Websites.

RESEARCH METHODOLOGY

The sample size of 30 Farmers and 30 Traders choosen randomly. The statistical techniques of as SPSS have been utilized for primary information and table are generated by frequency analysis.

DATA COLLECTION METHOD

Regarding to analysing the Primary data which I got it from questionnaire and some secondary data from web sites these following features can be discussed about the working of APMC Mysuru and opinion of the farmers. Statistical Tool for Analysis the SPSS, Frequency Analysis, and will be adapted to analysis of farmers and traders response towards functioning Mysuru APMC. The primary data is gathered through the open – ended and closed ended structured questionnaires to interviewing Traders and Farmers. Secondary data has been collected from APMC Market Mysuru, Karnataka India. And some more required data will be collected through Journals, Reports Government web sites, Books. The data on the implementation of technology its uses and feedback given by farmers and traders in Mysuru APMC is considered.

Sample Design:

The purposive Random Sampling Technique was adopted in sampling to arrive at a respective sample in a study.

Selection of sample Farmer in study area.

No. of Farmers	30
Total	30

Statistical Tools and Technique

In order to analysing the Primary and Secondary technique are used in the study.

CAGR (Compound Growth Rate Analysis)

The Compound Growth Rate Analysis was carried out to ascertain the data on the implementation of technology and its uses and feedback given by farmers and traders in Mysuru APMC is considered and is analysed using.

Farmers openion towards ICT usage in trading of agricultural commodities in Mysore APMC

Distance from Native to APMC	No. of Respondents	Per Cent
20-40 kms	6	20
40-60 kms	9	30
60-80 kms	7	23.3

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80-100 kms	7	23.3
More than 100 kms	1	3.3
Education Status		
Illiterate	1	3.3
Primary	5	16.7
High School	5	16.7
Secondary	15	44
Graduate	1	3.3
Post-Graduate	3	10
Family Income		
400000-600000	1	3.3
200000-400000	7	23.3
80000-200000	10	33.3
300000-80000	3	10
More than 600000	9	30
Mobile Phone Users		
Yes	22	73.3
No	8	26.7
Internet connction		
Yes	12	40
No	18	60
Commodities Sold in APMC		
Oil seeds	2	6.6
Pulses	5	20
Grains	4	13.3
Vegetables	9	30.3
Forest produce	6	20
Cereals	4	13.3
Frequency of visits to APMC		
Weekly	7	23.3
Monthly	6	20
Seasonal	17	56.7
Preference of cash transactions		
Online	4	13.3
Offline	26	86.7
Constraints in Trading commodities		
Existance of middleman	11	36.7
No proper price fixation	11	36.7
Cheating while weighing		
	4	13.3
Late payment	4	13.3
Access to SMS facility		

Yes	21	70
No	9	30
Sources of Market Information		
Internet	1	3.3
television	14	46.7
SMS	4	13.3
Newspaper	8	26.7
Radio	1	3.3
Magazine	2	6.7
Suggestion to improve the APMC		
Drying yard	1	3.3
Cold storage	17	56.7
elimination of middleman	2	6.7
reduce tax rate	1	3.3
monitoring APMC working	7	23.3
warehouse facility	2	6.7

Source: Primary Survey 2018

The study indicates the Farming/Native places of the Farmers. It shows out of 30 farmers, 43 per cent of the farmers are from Nanjangud taluk. 26 per cent of the farmers are from Gundulpet. The distance from native/farming place to APMC. It shows out of 30 farmers, 30 per cent of farmers come from 40-60 kms far and 23 per cent of farmers come from 60-80 and 80-100 kms far. The Age of the Farmers. It shows out of 30 farmers, 30 per cent of farmers age between 25-35 years, 23 per cent of farmers Age between 35-50 years and 50-70 years. It shows out of 30 farmers, 100 per cent of farmers are Male there are no female farmers were available in Mysuru APMC. It shows out of 30 farmers, 44 per cent of farmers have completed their PUC, 16 per cent have completed their primary and secondary education.

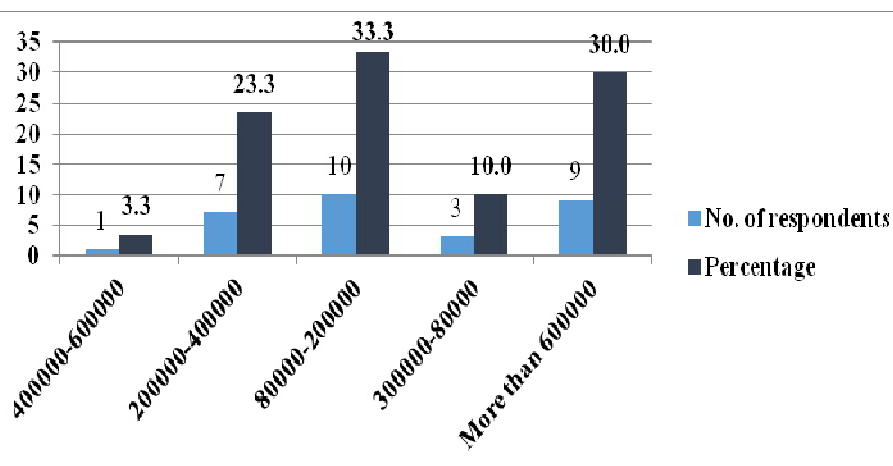


Figure showing Income of the Farmers.

The table 1 indicates the income of the farmers. It shows out of 30 farmers, 33 per cent of the farmers earn 80000-200000, 23 per cent of the farmers earn 200000-400000. It shows out of 30 farmers, 53 per cent of the farmers 4-5 members in families depend on agriculture, 26 per cent of the farmers 8-9 members in families depend on agriculture.

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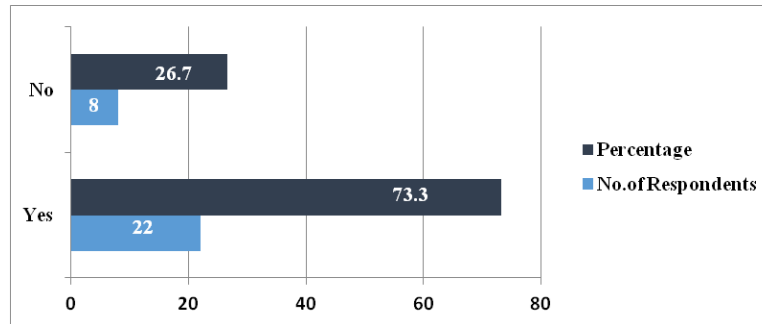


Figure showing no. of farmers using mobile phones.

It shows out of 30 farmers, 73 per cent of the farmers use mobile phones and

27 per cent of the farmers do not use mobile phones. The table indicates the No. of farmers having internet connection in their mobile phones. It shows out of 30 farmers, 40 per cent of the farmers have internet connection in their mobile phones and 60 per cent of the farmers do not have internet connection in their mobile phones. The table indicates the No. of farmers selling in APMC. It shows out of 30 farmers, 97 per cent of the farmers sell in APMC and only 3 per cent of farmers do not sell in APMC Mysuru. It shows out of 30 farmers, 30 per cent of the farmers sell vegetables in APMC and 20 per cent of farmers sell pulses and forest produce like tamarind in APMC Mysuru. out of 30 farmers, 57 per cent of the farmers visit and sell according to seasonal in APMC and 23 per cent of farmers visit and sell weekly in APMC Mysuru. out of 30 farmers, 53 per cent of the farmers are convenient with the market location and 23 per cent of farmers are not convenient with the location of the APMC Mysuru. 63 per cent of the farmers are convenient with the market hours of operation and 37 per cent of farmers are not convenient or satisfied with the hours of operation of the APMC Mysuru.

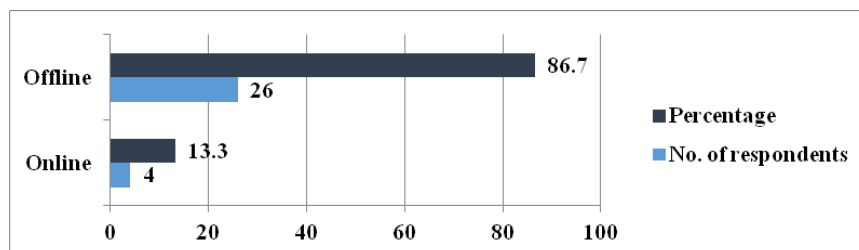


Figure showing farmers showing farmers preference for mode of cash transaction to be done.

87 per cent of the farmers prefer offline transaction and 13 per cent of farmers prefer online transaction to be done in APMC Mysuru.

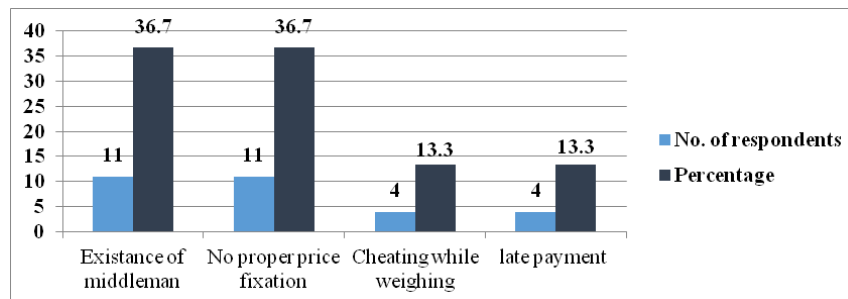


Figure showing farmers difficulties while trading with the traders.

37 per cent of the farmers find difficulty with the existence of middleman and no proper price fixation and 13 per cent of farmers find difficulty in cheating while weighing and late payment from the traders according to the survey conducted in Mysuru APMC. 53 per cent of the farmers say that they have no access to Tool-Free facility to get market information and 47 per cent of farmers say that they have access to Tool-Free facility to get market information according to the survey conducted in Mysuru APMC.

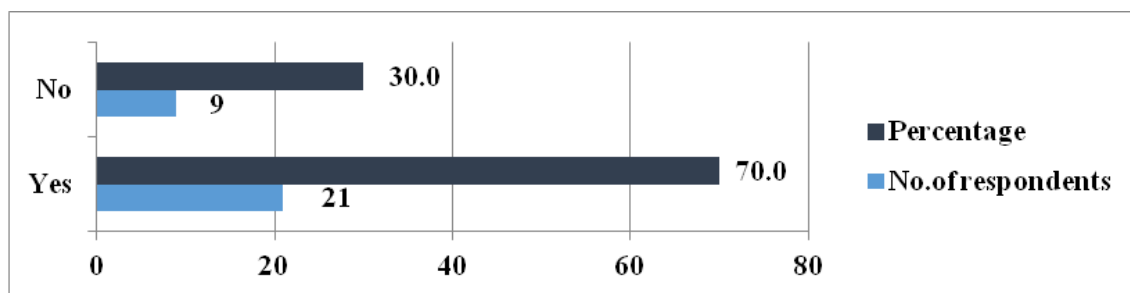


Figure showing no. of farmers registered to get free SMS on daily prices of Notified Commodities.

70 per cent of the farmers say that they have registered to get free SMS on daily prices of Notified Commodities and 30 per cent of farmers say that they have not registered to get free SMS on daily prices of Notified Commodities. According to the survey conducted in Mysuru APMC.

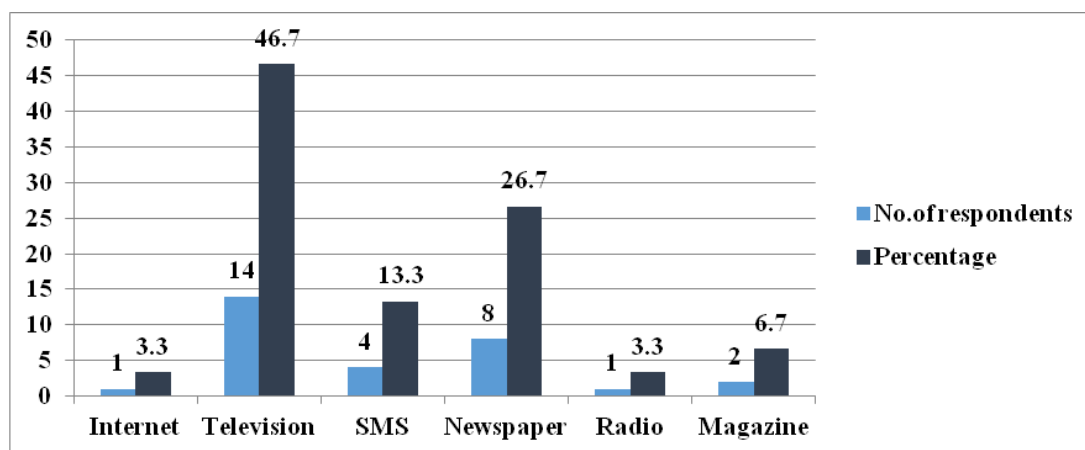


Figure showing the mode by which farmers are getting Market Information.

47 per cent of the farmers say that they get market information by television and 27 per cent of farmers say that they get market information by newspaper. According to the survey conducted in Mysuru APMC. 57 per cent of the farmers say that cold storage should be there as to store perishable commodities like vegetables and 23 per cent of farmers say that there should be an proper supervision, monitoring the working of APMC. According to the survey conducted in Mysuru APMC.

CONCLUSION

The Indian farmer and those who are working for their welfare need to be e-powered to face the emerging scenario of complete or partial deregulation & reduction in government protection, opening up of agricultural markets, fluctuations in agricultural environment and to exploit possible opportunities for exports. The quality of rural life can also be improved by quality

information inputs which provide better decision making abilities. IT can play a major role in facilitating the process of transformation of rural India to meet these challenges and to remove the fast growing digital divide. The rapid changes in the field of information technology makes it possible to develop and disseminate required electronic services to rural India. The existing bottlenecks in undertaking the tasks need to be addressed immediately. A national strategy needs to be drawn for spearheading IT penetration to rural India. A national coordinating agency with an advisory role can act as a catalyst in the process. No single institution or organisation alone can succeed in the task of e-powering farmers and rural India. At the same time, scattered and half hearted attempts can not be successful in meeting the objective. Industries with major stake in villages, such as fertiliser sector, should come together to provide the initial impetus.

The success of any IT based service to rural India hinges on evolving a proper revenue model for the dissemination points. The 'clicks & mortar' rural kiosks should be integrated with the 'bricks & mortar' industry to make them sustainable ventures by making them a business gateway to rural India. The information kiosks can draw revenue from the industry by providing and disseminating required services. Once these dissemination points prove to be economically viable, the IT revolution in rural India will require no crusaders.

This chapter reviewed some of the agricultural extension approaches currently in operation in Karnataka and also revealed policy interventions that promotes ICT for agricultural extension in Karnataka. In the context of providing information system, an innovation can emerge from many sources and through complex interactions and knowledge flows, with the farmer being at the centre of the process. Some of them are Kisan Call Centre, Karnataka Government Websites of Agriculture and allied sector, innovative mobile applications like e-mandi, Krishi Vigyan Kendras, All India Radio, television, agricultural magazines, newspaper and so on. There is no scarcity of information sources, but the receivers are very less because of lack of awareness on ICT programmes and their utilization. Hence, public sector should provide information at grass root level for accessing innovative technologies and innovative knowledge to create smart farming community. The agricultural produce market committee provides complete control of legal marketing of agricultural produce of farmers. After independence it is a best progressive factor in the field of agriculture. This marketing system is best origination with longer vision which can provide cost savings, increasing fair price and better decision making farmers and the trained staff of APMC should make a thorough study of agricultural environment before deciding the marketing strategies. Then everybody can expect. The lessons learnt from the Karnataka's experience can provide useful information for implementation of the same service in improved formats in other states and also introduction of similar type of services at the AGMARKNET (Agricultural Marketing Information Network, which is act wise nationwide information network for speedy collection and dissemination of market information in the country) and further, Govt. should take a special interest in establishing a separate agency for dissemination of all the agricultural information in the local language to all the states stakeholders at free of cost in order to reach large proportion of beneficiaries throughout India.

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THE VOLATILITY OF MARKET RISK OF VIET NAM STOCK INVESTMENT INDUSTRY AFTER THE LOW INFLATION PERIOD 2015-2017

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ABSTRACT

The Vietnam economy has obtained lots of achievements after the financial crisis 2007-2011, until it reached a low inflation rate of 0.6% in 2015. Vietnam stock investment industry are growing and contributing much to the economic development and has been affected by inflation. High and increasing inflation might reduce values of insurance contracts. This paper measures the volatility of market risk in Viet Nam stock investment industry after this period (2015-2017). The main reason is the necessary role of the insurance company system in Vietnam in the economic development and growth in recent years always go with risk potential and risk control policies.

This research paper aims to figure out how much increase or decrease in the market risk of Vietnam stock investment firms during the post-low inflation environment 2015-2017. First, by using quantitative combined with comparative data analysis method, we find out the risk level measured by equity beta mean in the insurance industry is acceptable, as it is lower than ($<$) 1.

Then, one of its major findings is the comparison between risk level of stock investment industry during the financial crisis 2007-2009 compared to those in the post-low inflation time 2015-2017. In fact, the research findings show us market risk level during the post-low inflation time has decreased much. Finally, this paper provides some ideas that could provide companies and government more evidence in establishing their policies in governance. This is the complex task but the research results shows us warning that the market risk need to be controlled better during the post-low inflation period 2015-2017. And our conclusion part will recommends some policies and plans to deal with it.

JEL classification numbers: G010, G390

Keywords: *risk management, asset beta, financial crisis, stock investment industry, policy*

INTRODUCTION

Throughout many recent years (2006 until now), Viet Nam stock investment market is evaluated as one of active markets, which has certain positive effect for the economy and become one of vital players in the financial system of the nation.

Stock investment companies have been affected by inflation (see more in the below conceptual theories part). Generally speaking, central banks aim to maintain inflation around 2% to 3%. Increases in inflation significantly beyond this range can lead to possible hyperinflation, a devastating scenario in which inflation rises rapidly out of control, and therefore harm the insurance industry. Looking at exhibit 1, we can see the Vietnam economy has controlled inflation well.

This study will calculate and figure out whether the market risk level during the post-low inflation time (2015) has increased or decreased, compared to those statistics in the financial crisis time (2007-2009).

The paper is organized as follows: after the introduction it is the research issues, literature review, conceptual theories and methodology. Next, section 3 will cover main research

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findings/results. Section 4 gives us some risk analysis, then section 5 presents discussion and conclusion and policy suggestion will be in the section 6.

2 BODY OF MANUSCRIPT

2.1 Research Issues

The scope of this study are:

Issue 1: Whether the risk level of stock investment firms under the different changing scenarios in post-low inflation period 2015-2017 increase or decrease so much, compared to in financial crisis 2007-2009 and?

Issue 2: Because Viet Nam is an emerging and immature financial market and the stock market still in the starting stage, whether the dispersed distribution of beta values become large in the different changing periods in the stock investment industry.

2.2 Literature review

Next, Martin and Sweder (2012) pointed out that incentives embedded in the capital structure of banks contribute to systemic fragility, and so support the Basel III proposals towards less leverage and higher loss absorption capacity of capital. Najeb (2013) suggested a positive relationship between efficient stock markets and economic growth, both in short run and long run and there is evidence of an indirect transmission mechanism through the effect of stock market development on investment.

Yener et al (2014) found evidence that unusually low interest rates over an extended period of time contributed to an increase in banks' risk.

Emilios (2015) mentioned that bank leverage ratios are primarily seen as a microprudential measure that intends to increase bank resilience. Yet in today's environment of excessive liquidity due to very low interest rates and quantitative easing, bank leverage ratios should also be viewed as a key part of the macroprudential framework. As such, it explains the role of the leverage cycle in causing financial instability and sheds light on the impact of leverage restraints on good bank governance and allocative efficiency.

Atousa and Shima (2015) found out *the econometric results indicate that life insurance sector growth contributes positively to economic growth*. Then, Gunarathna (2016) revealed that financial leverage positively correlate with financial risk. However, firm size negatively affects the financial risk.

Aykut (2016) suggested two main findings: (i) Credit risk and Foreign exchange rate have a positive and significant effect, but interest rate has insignificant effect on banking sector profitability, (ii) credit and market risk have a positive and significant effect on conditional bank stock return volatility.

Last but not least, Riet (2017) mentioned that after the euro area crisis had subsided, the Governing Council of the ECB still faced a series of complex and evolving monetary policy challenges. As market volatility abated, but deflationary pressures emerged, the main task as from June 2014 became to design a sufficiently strong monetary stimulus that could reach market segments that were deprived of credit at reasonable costs and to counter the risk of a too prolonged period of low inflation. Hami (2017) showed that inflation has a negatively significant effect on financial depth and also positively significant effect on the ratio of total deposits in banking system to nominal GDP in Iran during the observation period.

Finally, Chizoba et al (2018) revealed that inflation rate had a positive but insignificant effect on insurance penetration of the Nigerian insurance industry. The implication is that the

macroeconomic variable (inflation) increase the level of insurance penetration in Nigerian insurance industry but its increase was not significant. And Miguel et al (2018) found a consistently negative and nonlinear effect of price increases on financial variables; in particular, it is statistically significant in the full sample of countries, significant in developing countries, and insignificant in developed countries.

2.3 Conceptual theories

Positive sides of low inflation: Low (not negative) inflation reduces the potential of economic recession by enabling the labor market to adjust more quickly in a downturn, and reduces the risk that a liquidity trap prevents monetary policy from stabilizing the economy. This is explaining why many economists nowadays prefer a low and stable rate of inflation. It will help investment, encourage exports and prevent boom economy. The central bank can use monetary policies, for instance, increasing interest rates to reduce lending, control money supply or the Ministry of finance and the government can use tight fiscal policy (high tax) to achieve low inflation.

Negative side of low inflation: it leads to low aggregate demand and economic growth, recession potential and high unemployment. Production becomes less vibrant. Low inflation makes real wages higher. Workers can thus reduce the supply of labor and increase rest time. On the other hand, low product prices reduce production motivation. The central bank might consider using monetary policy to stimulate the economic growth during low-inflation environment. It means that an expansionary monetary policy can be used to increase the volume of bank loans to stimulate the economy.

Financial and credit risk in the bank system can increase when the financial market becomes more active and bigger, esp. with more international linkage influence. Hence, central banks, commercial banks, organizations and the government need to organize data to analyze and control these risks, including market risk.

For the insurance industry, high inflation may harm the insurance companies and cause higher losses and increase the operational costs. In case of low inflation, interest rates may fall and hence, it is not a benefit for insurers' investment portfolio. Hence, risk assessment and control mechanisms are necessary for insurers to reduce these losses.

2.4 Methodology

We use the data from the stock exchange market in Viet Nam (HOSE and HNX) during the financial crisis 2007-2009 period and the post – low inflation time 2015-2017 to estimate systemic risk results. We perform both fundamental data analysis and financial techniques to calculate equity and asset beta values.

In this study, analytical research method and specially, comparative analysis method is used, combined with quantitative data analysis. Analytical data is from the situation of listed insurance firms in VN stock exchange.

Finally, we use the results to suggest policy for both these enterprises, relevant organizations and government.

3 MAIN RESULTS

3.1 General Data Analysis

We get some analytical results from the research sample with 8 listed firms in the stock investment market with the live date from the stock exchange.

3.2 Empirical Research Findings and Discussion

In the below section, data used are from total 8 listed stock investment industry companies on VN stock exchange (HOSE and HNX mainly). Different scenarios are created by comparing the calculation risk data between 2 periods: the post – low inflation environment 2015-2017 and the financial crisis 2007-2009.

Market risk (beta) under the impact of tax rate, includes: 1) equity beta; and 2) asset beta. We model our data analysis as in the below figure:

Figure 1 – Analyzing market risk under two (2) scenarios: post – low inflation period 2015-2017 compared to the financial crisis 2007-2009

	Risk level (equity beta)	Risk level (asset beta)	Other measures	Gap
Post – low inflation period	Scenario ...	Scenario ..	Scenario ..	Analysis
Financial crisis time				

Table 1 – The Volatility of Market Risk (beta) of Stock investment Industry in the post- low inflation environment 2015-2017

Order No.	Company stock code	2015-2017 (post - low inflation)		Note
		Equity beta	Asset beta (assume debt beta = 0)	
1	AGR	0.911	0.835	assume debt beta = 0; debt ratio as in F.S 2015
2	APG	0.333	0.294	
3	APS	0.821	0.621	
4	AVS			
5	BSI	0.602	0.219	
6	BVS	0.590	0.406	
7	CLS			
8	CTS	0.781	0.586	
9	SHS	1.104	0.338	
10	VNR	-0.169	-0.069	

Table 2 – The Statistics of Volatility of Market Risk (beta) of Stock investment Industry in the post- low inflation environment 2015-2017

Statistic results	2015-2017 (post - low inflation)	
	Equity beta	Asset beta (assume debt beta = 0)
MAX	1.104	0.835
MIN	-0.169	-0.069
MEAN	0.622	0.404
VAR	0.1559	0.0772
Note: Sample size : 8 (We just take a sample of 8 firms to make comparison)		

Table 3 – The Comparison of Volatility of Market Risk (beta) of Stock investment Industry in the post- low inflation environment 2015-2017 and the financial crisis 2007-2009

		2007-2009 (financial crisis)		2015-2017 (post - low inflation)		
Order No.	Company stock code	Equity beta	Asset beta (assume debt beta = 0)	Equity beta	Asset beta (assume debt beta = 0)	Note
1	AGR	1	0.313	0.911	0.835	assume debt beta = 0; debt ratio as in F.S 2015 and 2008
2	APG	0.648	0.63	0.333	0.294	
3	APS	0.895	0.382	0.821	0.621	
4	AVS	0.546	0.425	0.000	0.000	
5	BSI	1	0.873	0.602	0.219	
6	BVS	2	2	0.590	0.406	
7	CLS	0.662	0.331	0.000	0.000	
8	CTS	0.812	0.546	0.781	0.586	
9	SHS			1.104	0.338	
10	VNR	0.922	0.525	-0.169	-0.069	

Table 4 – The Difference between Volatility of Market Risk (beta) of Stock investment Industry in the post- low inflation environment 2015-2017 and the financial crisis 2007-2009

		GAP (+/-) 2015-17 compared to 2007-09		
Order No.	Company stock code	Equity beta	Asset beta (assume debt beta = 0)	Note
1	AGR	-0.459	0.522	values (2015-17) minus (-) 2007-09
2	APG	-0.315	-0.336	
3	APS	-0.074	0.239	
4	AVS	-0.546	-0.425	
5	BSI	-0.523	-0.654	
6	BVS	-1.569	-1.186	
7	CLS	-0.662	-0.331	
8	CTS	-0.031	0.040	
9	SHS	N/A	N/A	
10	VNR	-1.091	-0.594	

Table 5 – Statistics of Volatility of Market Risk (beta) of Stock investment Industry in the post- low inflation environment 2015-2017 compared to those in the financial crisis 2007-2009

	2007-2009 (crisis)		2015-2017 (post - low inflation)		GAP (+/-) 2015-17 compared to 2007-09	
Statistic results	Equity beta	Asset beta (assume debt beta = 0)	Equity beta	Asset beta (assume debt beta = 0)	Equity beta	Asset beta (assume debt beta = 0)
MAX	2.159	1.592	1.104	0.835	-1.055	-0.757
MIN	0.546	0.313	-0.169	-0.069	-0.715	-0.382
MEAN	1.015	0.624	0.622	0.404	-0.394	-0.220
VAR	0.2488	0.1620	0.156	0.077	-0.093	-0.085
Note: Sample size : 8						

Based on the above calculation result table, we analyze data as follows:

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Firstly, we see in the table 1 that there is only 1 stock firm (over 8 companies) have equity beta values higher ($>$) than 1 while there are 7 insurers with beta <1 , which means risk level acceptable.

And table 2 provides evidence for us to see that equity beta mean of the sample is 0.622, lower than ($<$) 1. It is acceptable.

Then, looking at the table 3, we recognize that there is only 1 stock firm with equity beta values > 1 (SHS) in the post-low inflation period 2015-17, whereas there are 3 stock company (AGR, BSI, BVS) with equity beta values ≥ 1 in the financial crisis 2007-2009.

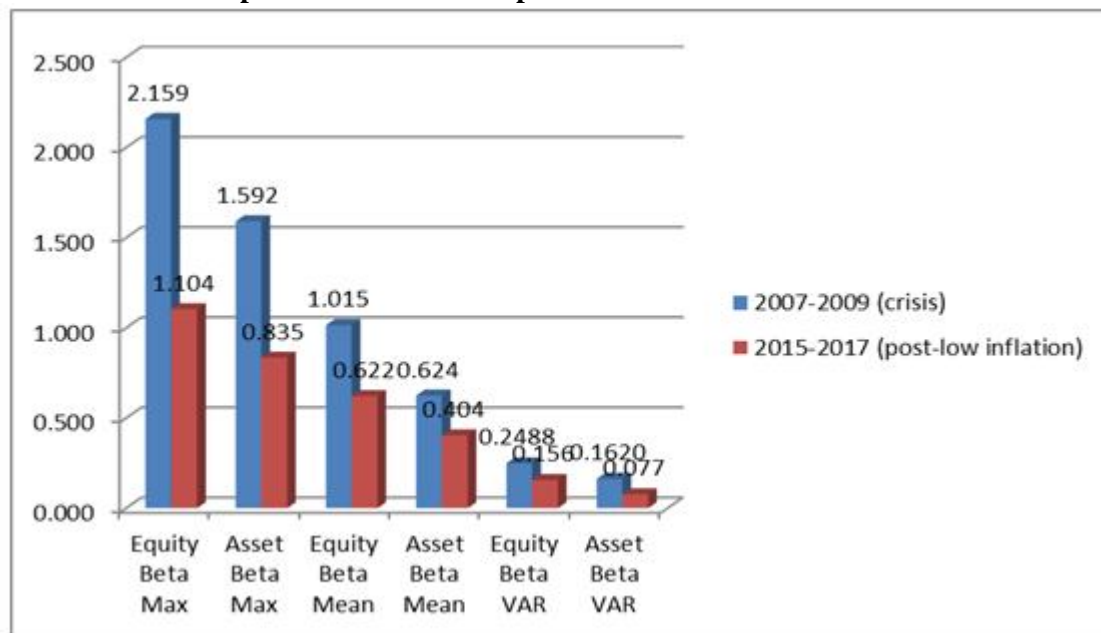
Next, table 4 shows that most of the equity and asset beta values in the post- low inflation period are lower ($>$) than those in the financial crisis 2007-2009. Esp. the figures represent the risk level of 7 over 10 stock firms (AGR,APG, APS, BSI, BVS, CTS, VNR) lower during the post-low inflation period.

Furthermore, table 5 tells us all statistics of equity beta in the post-inflation period 2015-2017 are lower ($>$) than those in the financial crisis 2007-2009, and there is only one case with negative beta value.

In addition to, looking at the below chart 1 - , we can find out:

Values of equity beta max and equity beta mean, as well as equity beta var and asset beta values in the post-low inflation 2015-2017 are much lower ($>$) than those in the crisis 2007-2009. Esp, equity beta mean and max are obviously lower. It means that the level of risk in the post – low inflation period 2015-17 is much lower in general and in average.

Chart 1 – Statistics of Market risk (beta) in VN stock investment industry in the post – low inflation period 2015-2017 compared to the financial crisis 2007-2009



4. RISK ANALYSIS

Inflation can affect negatively on market capitalization, but low inflation could be beneficial to economic recovery and might have benefits for financial system as investors can perform more transactions.

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5. DISCUSSION FOR FURTHER RESEARCHES

We can continue to analyze risk factors behind the risk scene (risk increasing as above analysis) in order to recommend suitable policies and plans to control market risk better. Also, the role of risk management and risk managers need to be developed more.

6. CONCLUSION AND POLICY SUGGESTION

In general, stock investment companies system in Vietnam has been contributing significantly to the economic development and GDP growth rate of more than 6-7% in recent years (see Exhibit 2). The above analysis shows us that most of risk measures (equity beta max, mean and var) are decreasing during the post-low inflation period. However, stock investment company system in Vietnam need to continue increase their corporate governance system, structure and mechanisms, as well as their competitive advantage to control risk better. For instance, stock investment system might consider proper measures and plans to manage bad scenarios in future. Another way is increasing productivity while reducing management or operational costs.

This research paper provides evidence that the market risk potential has decreased in 2015-2017 post-low inflation period (looking again chart 1 – equity beta mean values), while the Exhibit 3 also suggests that the credit growth rate increased in 2016 and slightly decrease in later years (2017-2018). It means that the local economy is trying to control credit growth reasonably, however we need to analyze risk factors more carefully to reduce more market risk.

Last but not least, different from banking industry, as it generates the result that the risk level became lower in the post-low inflation period, the government and relevant bodies such as Ministry of Finance and State Bank of Vietnam need to consider proper policies (including a combination of fiscal, monetary, exchange rate and price control policies) aiming to reduce/control the risk better and hence, help the stock market as well as the whole economy become more stable in next development stage.

Finally, this study opens some new directions for further researches in risk control policies in bank system as well as in the whole economy. For instance, how increasing inflation and deflation affects the risk level of stock investment industry and how much inflation is sufficient for financial system and economic development.

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EFFECT OF EXCHANGE RATE POLICY AND ITS VOLATILITY ON ECONOMIC GROWTH IN NIGERIA

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ABSTRACT

Exchange rate management in Nigeria has been influenced by several factors; economic and socio-political prior to independence in 1960. The primary focus of monetary policy is to determine the exchange rate that stabilizes prices, resulting to sustained growth in the economy. The problem of study is exchange rate volatility and the continued depreciation of the naira, surrounded by negative or sluggish growth indices. Nigeria has passed through different exchange rate regimes in order to find a realistic exchange rate for macroeconomic stability, but without remarkable success. Exchange rate steady fluctuations seem to have far reaching implications for inflation, price incentives, fiscal viability and competitiveness of exports in Nigeria. The main objective of this study is to investigate the effect of exchange rate policy/volatility on economic growth in Nigeria. The mechanism through which exchange rate volatility transmits on economic growth has to be understood within the framework of quantitative and qualitative analysis, anchoring on economic theories and principles. The model adopted is time series model; a dynamic distributed-lag model. It is a causal dynamic economic model that shows the long-run and short-run relationship as the parameters are restrictedly estimated, using secondary data. The results show negative relationship between exchange rate volatility and economic growth. The faster Nigeria evolves indigenous technology innovation in all sectors, with import substitution, the better for the country. This will insulate the economy from undue external dependency and currency manipulations.

BACKGROUND OF THE STUDY

Foreign exchange rates are published daily, and appear in the currency trading column of banks, the Nigeria Stock Exchange, the Wall Street Journal, the New York Stock Exchange and others. The currency of a country is the economy's central nervous system. It promotes economic growth primarily by improving the efficiency of capital allocation. The major objectives of exchange rate policy are to preserve the value of domestic currency, maintain a favorable external reserves position and ensure external balance without compromising the primary interest of internal balance, and overall macroeconomic stability, (CBN,2017). Exchange rates are determined by the interaction of demand and supply in the foreign exchange markets. However, exchange rate management in Nigeria has been influenced by several factors; economic and socio-political prior to independence in 1960. The primary focus of monetary policy is to determine the exchange rate that stabilizes prices, resulting to sustained growth in the economy. Changes in the structure of the Nigerian economy from agriculture as the main source of foreign exchange to crude oil, as well as increased trade volume in the real sector required robust strategies in exchange rate control. Prior to 1960, there was a global fixed exchange rate arrangement in which currencies were linked to gold, (Duke, Adesanya and Ahmadu, 2012). This allowed for unrestricted capital mobility and global stability in currencies and international trade. Similarly, Bakare, Adekunle and Akungba,(2011) posited that prior to 1986, Nigeria was on a fixed exchange rate determination system. At that time, the naira was very strong in reference to the US-Dollar. The exchange rate was one naira to one USD. For instance, the average annual official exchange rate for the years 1981, 1982, 1983, 1984 and

1985 which were pre-SAP era stood at N0.6100/1USD, N0.6729/1USD, N0.7241/1USD, and N0.8938/1USD, respectively. These were the hey days of the Nigerian economy, when the economy experienced a period of boom and the Naira had more value than the US dollar. However, the 1986 Structural Adjustment Program(SAP) under military Head of State, General Ibrahim Babangida destroyed everything. From that time onward, the increasing demand for foreign exchange to import even what Nigeria could produce, including apple, rice, tin tomatoes, fish and frozen chicken, and the inability to diversify the economy for commensurate exports, rapidly depreciated the naira. The exchange rate control system lacked the ability to evolve an appropriate mechanism for foreign exchange allocation in consonance with the goal of internal balance. Consequently, the fixed exchange rate was discarded, and a new exchange rate regime was introduced. The fixed exchange rate regime had many variations, these included the Nigerian pound pegged at parity with the British Pound sterling, pegging against a basket of currencies and the import-weighted basket approach. The effects of this pegged exchange rate mechanism are legion: the naira became overvalued, the economy became distorted and there was unbridled importation of finished consumer goods which had dire consequences for domestic production. The level of external reserves and the balance of payment (BOP) position were negatively impacted. Sharp practices on the part of dealers and end users of foreign exchange compounded the problem leading to prolonged BOP problem and general price instability. It was against this background that the market based Second-Tier Foreign Exchange Market (SFEM) was introduced in 1986. This liberalized regime was expected to solve the problem, mitigate the structural distortions in the economy, including finding a realistic value for the naira, ensuring competitiveness of goods produced in Nigeria in the international market. It was also aimed at addressing the problem of import dependence and capital flight, attracting foreign investment and reducing the disparity between the official and parallel market exchange rates. The exchange rate therefore depreciated sharply from N2.02/1USD in 1986 to N17.30/1USD by 1992 and further to N21.89/1USD by 1994. Following the economic recession in 2017, we have N350/1USD.

Under SFEM, the Central Bank of Nigeria intervened in the foreign exchange market on a weekly basis to sell foreign exchange to end users. The system led to spurious and multiple bidding by authorized dealers, thereby discrediting it and frustrating its objective of a realistic exchange rate. In a bid to ensure professionalism in bidding and to curb the propensity of high bids, the Dutch Auction System (DAS) was introduced in April 1987 under which the frequency of bidding was reduced from weekly to fortnightly. The DAS was hitherto abandoned because of teething problems associated with the deregulation of the foreign exchange market at its debut. In 1987, the dual exchange rate system was jettisoned as the first and second-tier foreign exchange regimes were merged into an enlarged Foreign Exchange Market with a unified rate, (CBN,2014). The year 1988 witnessed the adoption of the Autonomous Foreign Exchange Market(AFEM), where banks sold foreign exchange amongst themselves. This, amongst other reasons was to facilitate non-oil inflows into the Deposit Money Banks and curtail demand pressure. However, the AFEM turned out to be riddled with speculative activities and was later transformed into the interbank foreign exchange market (IFEM) in January 1989. During this period, the CBN monitored developments in the exchange rate of the major international currencies as a guide to determining the appropriate level of the naira exchange rate. The IFEM was modified in December 1990, when the retail Dutch Auction System (DAS) was re-introduced. As a result of the persistent instability in the foreign exchange market, such as the rise in the parallel market premium from 20 percent in 1990 to 35.5 percent in February 1992, the CBN adopted a completely deregulated system of foreign exchange trading on March 5, 1992. In response to the existence of the wide arbitrage premium between the official and parallel market, the government in 1994 undertook a fundamental reform of the market by

introducing a fixed exchange rate regime. It was formally pegged at N21.9060 per dollar and the pro-rata system of allocating foreign exchange was sustained. In 1995, the Exchange Monitoring and Miscellaneous Provisions Act was enacted, which gave legal backing to the creation of the Autonomous Foreign Exchange Market (AFEM) for trading privately sourced foreign exchange. The exchange rate was fixed at N22/1USD at the official window and for bona fide government transactions. The year 1999 witnessed a full deregulated exchange rate which was intended to reduce the rent-seeking behaviors and the establishment of some level of macroeconomic stability, (Duke et al, 2012). In 2002, the Retail Dutch Auction (RDAS) was introduced to narrow the premium that existed between the official and the parallel market and to stem the rising demand for foreign exchange. Under the RDAS, the naira exchange rate moved from N92.69/1USD in 1999 to N133.50/1USD in 2004, and further appreciated to N118.92/1USD by 2008. By the end of 2009, the WDAS was reinstated to determine and manage the exchange rate. However, due to the inability of the WDAS to mitigate the demand pressures, it gave way again to the RDAS in October, 2013, and was withdrawn on February 17, 2015, following reforms in the market. Thus, the CBN closed the official window of the market and moved all demand for foreign exchange to the inter-bank market. Historically, the Naira reached a record low of 0.53/1USD in September, 1980, and an all time high rate of N365/1USD in August 2017.

From the foregoing analysis, it is evident that the exchange rate policy in Nigeria has undergone substantial transformation from the post-independence era to date. Different exchange rate policies have been used depending on the prevailing domestic economic circumstances, and at other times, in response to the changing exchange rate policies in the rest of the world, as the Nigerian economy is grossly dependent on the global economy. The economic, social and political considerations underpinning the exchange rate policy have always had important consequences and repercussions for the structure and growth rate of the economy, net exports, inflation, foreign reserves, and balance of payment.

STATEMENT OF THE PROBLEM

The problem of study is exchange rate volatility and the continued depreciation of the naira, surrounded by negative or sluggish growth indices. Nigeria has passed through different exchange rate regimes in order to find a realistic exchange rate for macroeconomic stability, but without remarkable success. Exchange rate steady fluctuations seem to have far reaching implications for inflation, price incentives, fiscal viability and competitiveness of exports in Nigeria. High inflation, interest rate differentials, depletion of foreign reserves, structural deficiency in the economy are among the factors responsible for exchange rate depreciation in Nigeria. Made-in-Nigeria goods have high prices due to high costs of imported raw materials, in turn caused by high exchange rate volatility, infrastructure problems and inadequate incentives. Other factors working against the strength of the naira at the foreign exchange market include corruption and expansionary fiscal operations by federal and state governments, reckless importation, unnecessary and avoidable foreign trips by political office holders, external debt and interest payment problems are also traced to mismanagement of exchange rate. Also are, inadequate funding of the capital market and the roles of authorized and unauthorized dealers leading to frivolous demand for dollars and round tripping of funds obtained from official sources. Whenever the monetary authorities in Nigeria introduced a dual exchange rate regime, operators in the parallel market would take advantage of the usually wide gap between the two rates to round-trip by buying from the official market at a lower rate and then sell at the autonomous market so as to make profit from the margin. These have been difficult to control due to underdevelopment of the financial system and corruption. Besides, Nigeria's growth rate has not been sustainable, negative during economic recession, in spite of the country's

uncommon natural and human resources endowments. Import of finished consumer and capital goods is competing against agricultural and industrial producers, thereby worsening unemployment pressures. Agriculture as the most inclusive occupation is struggling in the face of high costs of imports of inputs as well as smuggling and dumping of finished products. It is in the light of these that this study seeks to investigate the effect of exchange rate policy and its volatility on economic growth in Nigeria between 1980 and 2017. The period of analysis is of particular significance because it covers the early 1980s when the naira had more value than the US Dollars, through the mid and late 1980s when SAP destroyed the naira and up to the 2016-2017 era when the Nigerian economy entered its latest recession.

According to Obadan,(2007), Nigeria's foreign exchange market which is dominated by the Central Bank of Nigeria(CBN), in terms of supply of foreign exchange, and considering the pass-through effects of exchange rate on inflation, calls for the need to continuously manage the exchange rate control. In the view of this study, exchange rate, apart from its pass through effect on inflation, seems to have transmission mechanisms in the real sector's economic activities such as agriculture, manufacturing, petroleum, tourism, the other social sectors and aggregate net-exports. Consequently, effective exchange rate policies are required for sustained growth and macroeconomic stability in Nigeria.

OBJECTIVE OF STUDY

The broad objective of this study is to investigate the effect of exchange rate policy/volatility on economic growth in Nigeria. The specific objectives include; examining the effect of exchange rate volatility on the real sector using selected macroeconomic variables such as inflation, balance of payment, imports and unemployment as the transmission mechanisms. The primary objective of monetary policy is to ensure price stability, which is inextricably intertwined with exchange rate stability. The study is to find out whether the objective of price stability in domestic trade as well as the value of the naira in comparison to the US Dollar and some foreign currencies has been achieved. This yardstick would determine the effectiveness of monetary and exchange rate policy in Nigeria. A fast depreciating local currency seems to create instability in macroeconomic variables, and a symptom of ineffective monetary and exchange rate policies. A flexible exchange rate, complementary with fiscal and structural policies should yield to macroeconomic stability.

Specific objective is to find ways to determine and control exchange rate volatility or fluctuation in Nigeria.

SIGNIFICANCE OF STUDY

Exchange rate and economic growth in Nigeria have been volatile and fluctuating over time. The volatility requires investigation given the time lag between the current study and other similar researches in the same area. Due to the wide spread effect of exchange rate volatility, its policy and development are a great concern to the government, the business sector, researchers, the household and the general public. More so, the task of managing the exchange rate is herculean for an economy struggling out of recession. The stability or appreciation of the naira is very important for many reasons; it provides the barometer for measuring the resilience of the Nigerian economy boosts the confidence of investors, competitiveness of exports, positively impact on balance of payment, increases employment, productivity and directly reduces inflation. Under the President Buhari's regime, emphasis is placed on financial deepening and exchange rate control and management. However, there are difficulties faced in controlling the financial deepening variables such as the exchange rate, broad money supply, increasing the level of credit to the private sector, high inflation rate, external reserves, and the treasury single account(TSA) regulation. These make this study significant, not in solving all the problems or

as a catch-all variable, but in the area of exchange rate policy and stemming its volatility. The study is significant to key stakeholders such as policy makers, regulators, operators, and markets.

DOES EXCHANGE RATE POLICY AND ITS VOLATILITY HAVE A CAUSAL RELATIONSHIP WITH ECONOMIC GROWTH?

Exchange rate policy forms a significant part of monetary policy which as a whole is a measure of financial development. Some studies maintained that financial development will have a disproportionately beneficial impact on business expansion, income distribution, capital accumulation, poverty alleviation and economic growth; (Banerjee and Newman, 1993; Aghion and Bolton, 1997). Greenwood and Jovanovich, (1990), showed how the interaction of financial volatility and economic growth can give rise to an inverted U-shaped curve of income inequality and incidence of poverty in a non-linear relationship. There seems to be a direct causal relationship between exchange rate and economic growth in Nigeria. Exchange rate plays an increasingly significant role in the economy because other macroeconomic variables are either directly or indirectly affected by it. Domestic general price level, production decisions by the business sector, savings and investment, domestic trade, imports and exports, profitability of traded goods and services, consumption decision by household, government revenue and expenditure, employment decisions, entrepreneurship development are all affected. The exchange rates of currencies obtainable in developed economies are more stable, example the US dollar because they have been able to diversify their economy and the basket of commodities which they export is also diversified. This is the opposite, compared to emerging and developing economy like Nigeria. This could be confirmed with the following statistics on the exchange rate of selected countries:

TABLE 1: EXCHANGE RATES OF SELECTED COUNTRIES (Value in units of currencies to USD):2013-2015

COUNTRIES	CURRENCY	December 31, 2013	December 31, 2014	December 31, 2015	% Change Dec.2014	% Change Dec.2015
Nigeria	Naira	157.27	169.68	197	7.89	16.10
South Africa	Rand	10.32	11.57	15.48	9.98	38.79
Kenya	Shilling	86.3	90.6	102.3	4.98	12.91
Egypt	Pound	6.95	7.15	7.83	2.88	9.51
Ghana	Cedi	2.38	3.22	3.81	35.29	18.32
Canada	Dollar	1.06	1.16	1.38	9.43	18.97
Mexico	Peso	13.1	14.75	17.23	12.6	16.8
Brazil	Real	2.36	2.66	3.96	12.71	48.87
Argentina	Peso	6.52	8.47	12.93	29.91	52.66
Colombia	Peso	1929.51	2376.51	3174.5	23.17	33.58
United Kingdom	Pound	0.6	0.64	0.68	6.67	6.25
EU	Euro	0.73	0.83	0.92	13.70	10.84
Russia	Ruble	32.87	60.74	72.85	84.79	19.94
Japan	Yen	105.26	119.78	120.2	13.79	0.35
China	Yuan	6.23	6.05	6.49	-2.89	7.27
India	Rupee	54.78	61.8	66.15	12.81	7.04

In addition, the developed economies amongst others, have well developed financial and monetary system, highly liquid currencies, independent and insulated Central Bank, as well as

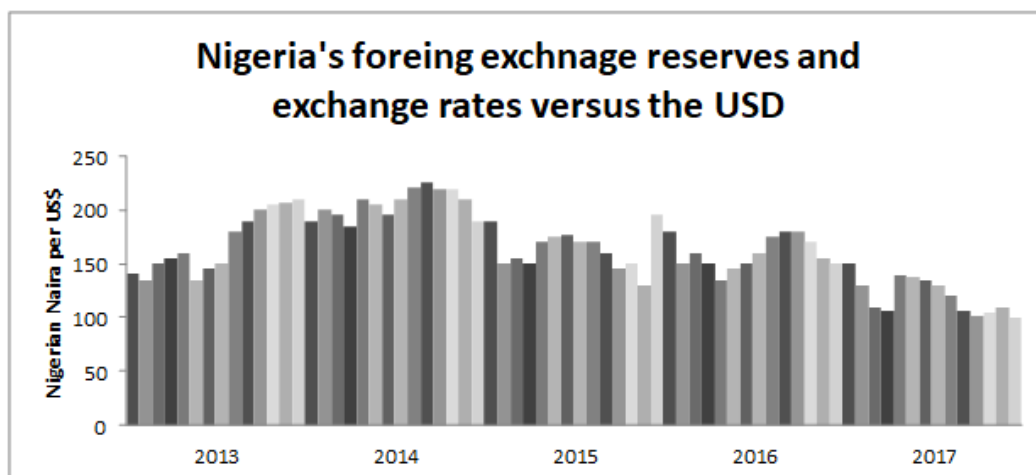
highly globalized in trade. The stability of exchange rate of the naira is today a major challenge to the Central Bank of Nigeria due to the absence of the afore-mentioned indices. Table 2 shows the exchange rate movement in Nigeria since 2004.

Table 2: EXCHANGE RATE VOLATILITY IN NIGERIA 2004-2017(N/\$)

Year	Official	BUREAUX	Inter-Bank Rate
2004	133.50	140.85	134.67
2005	132.15	142.56	133.00
2006	128.65	137.10	128.67
2007	125.83	127.41	125.72
2008	118.57	120.71	119.00
2009	148.88	161.64	150.70
2010	150.30	153.06	151.89
2011	153.86	159.31	155.89
2012	157.50	160.86	158.84
2013	157.31	162.45	159.25
2014	158.55	171.45	164.88
2015	193.28	222.72	197.00
2016	253.49	305.86	250.74
2017	306.56	350.77	315.26

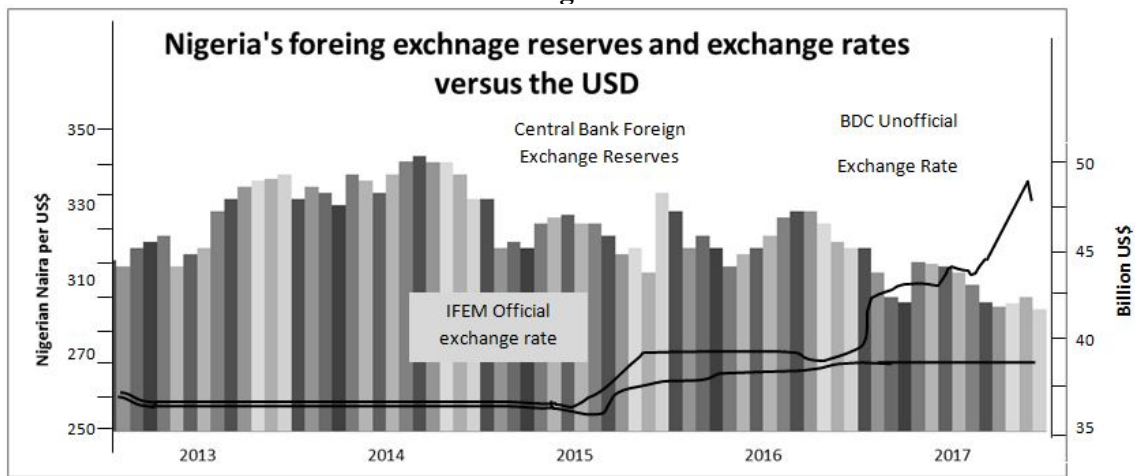
This agrees with Sanusi,(2004) that greater productivity, which is a necessary cause and effect of economic growth has been associated with less volatility in exchange rate. In 2017, there were major changes in the foreign exchange rate management, (Ukeje, 2017) . The Central Bank of Nigeria, through its policy actions increased the hardship experienced by end-users of foreign exchange. This is because foreign exchange became even scarcer than before; in the academics for instance, even to pay for a publication in international journal, getting the US dollar at the official rate was almost impossible. Then one could imagine the hardship of small and medium scale industrialists who rely solely on imported raw materials. As at February, 2017, the CBN addressed the issues of foreign exchange sales for invisible transactions(IT), personal travel allowances(PTA) and business travel allowances(BTA), medical needs, and school fees, and emphasized that retail transactions to be settled at a rate not exceeding 20 percent above the interbank rate.

Fig1a:



However, despite the efforts of the CBN to reduce the tenor of its forward sales from 180 days to 60 days from the date of transaction, foreign currency liquidity has not significantly increased, and it is still a problem to output and income growth in the real sector of the economy. Foreign purchases, agricultural and industrial exports are directly affected by exchange rate volatility. Given the requirements of finance in the real sector, very few farmers have capital to invest in agribusiness, and to advantageously use improved seeds, chemicals, fertilizers, irrigation and machineries in the value chain. Even those engaged in the fadama projects find it difficult to make reasonable profit due to the high costs of farm inputs, including high cost of imported refined petrol for irrigation, raising the total cost of production. The farmers' frustration is worsened by inadequate and non-availability of credits, as well as lack of access to market due to foreign competition. Exchange rate volatility tends to affect commodity prices in the domestic market.

Fig1b



It has effect on government expenditure on infrastructure, responds to cost-push inflation and generally increases the cost of doing business in Nigeria. It affects the aggregate price level, aggregate income, and aggregate output in the economy. It also affects activities in the financial market where funds are transferred from the surplus spending units to the deficit spending units. These in turn, have not promoted greater economic efficiency; rather, the cyclical performance of the economy has landed in a recession with huge volatility and economic uncertainties. The nexus between exchange rate volatility and economic growth in Nigeria is proxied in the random movement of real gross domestic product (RGDP) thus:

Table3: NIGERIA RGDP AND EXCHANGE RATE 1996-2016

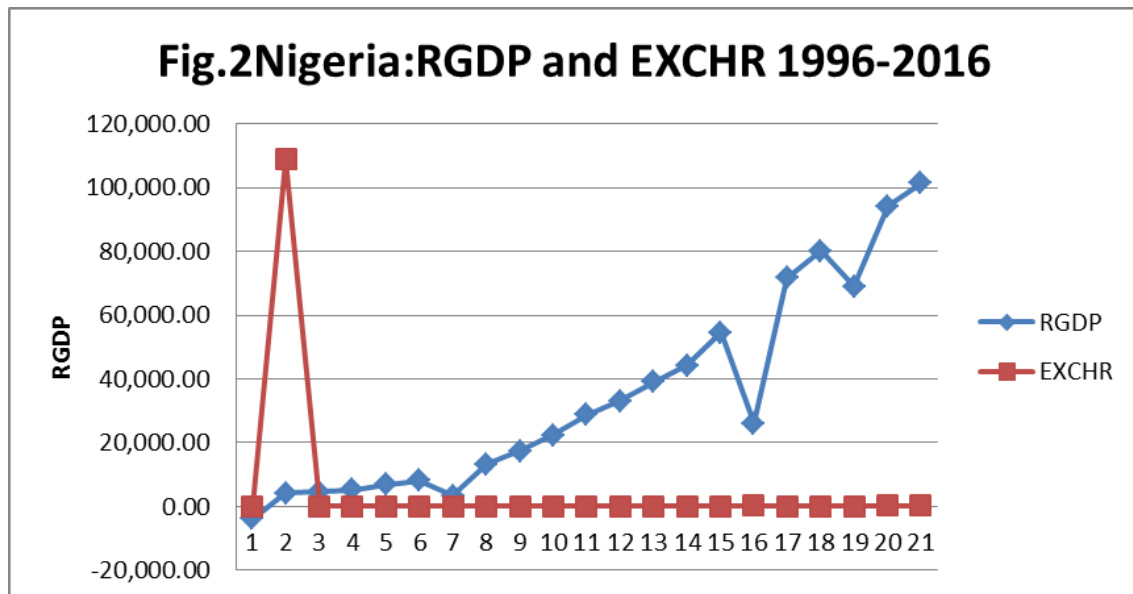
Year	RGDP(N billion)	EXCHANGE RATE(%)
1996	3,779.13	21.8861
1997	4,111.64	21.8861
1998	4,588.99	21.8861
1999	5,307.36	92.6934
2000	6,897.48	102.1052
2001	8,134.14	111.9433
2002	11,332.25	120.9702
2003	13,301.56	129.3565
2004	17,321.30	133.5004
2005	22,269.98	132.1470

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2006	28,662.47	128.6516
2007	32,995.38	125.8331
2008	39,157.88	118.5669
2009	44,285.56	148.8802
2010	54,612.26	150.2980
2011	62,980.40	153.8616
2012	71,713.94	157.4994
2013	80,092.56	157.3112
2014	89,043.62	158.5526
2015	94,144.96	193.2792
2016	101,489.49	253.4923

Source: Central Bank of Nigeria Statistical Bulletin, Vol.27,2016



Source: Authors' computation n,2018

THEORETICAL FRAMEWORK

The purchasing power parity (PPP) theory was developed by Gustav Cassel in 1920 to determine the exchange rate between countries on inconvertible paper currencies. The theory states that equilibrium exchange rate between two inconvertible paper currencies is determined by the equality of their purchasing power. Put differently, the rate of exchange between two countries is determined by the relative price levels. According to the theory, the equilibrium exchange rate between two countries is determined at a point which expresses the equality between their respective purchasing powers of the two currencies. This is the purchasing power parity which is a moving par as under the gold standard. The most known theoretical explanation of long term stability and consistency of bilateral exchange rate is the purchasing power parity hypothesis. It is therefore rational to test for long run stability of PPP, (Dornbusch, 1986; Jhingan, 2012; Duke, Adesanya and Ahmadu, 2012). Other researchers, have used the PPP to link domestic economic development with international trade, (Babatunde and Akinwale, 2010; Emerah, Adeleke and Olusegun, 2015). The PPP hypothesis is directly significant to this study because the study is attempting to situate the parity of the naira in terms of other countries' currencies, in the face of its continuous depreciation. The nominal or real exchange rate between the naira and the US Dollar or the Pound Sterling for instance, should be equal to the ratio of

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goods and services in exchange, not an eroded value of the naira in favor of the other two currencies. Furthermore, the liquidity framework and the loanable funds framework are suitable for this study. The loanable funds framework determines the equilibrium interest rate, using the supply of, and the demand for financial assets. An alternative model developed by John Maynard Keynes is the liquidity framework which determines the equilibrium interest rate in terms of the supply of, and demand for money. The liquidity preference analysis of the financial market is closely related to the loanable funds framework. The starting point of Keynes analysis is his assumption that there are two main categories of assets that economic agents use to store their wealth: money and bonds or stocks. Exchange rate volatility affects the store value of wealth. Therefore, total assets in the economy must equal the total quantity of money plus stocks supplied. Exchange rate volatility causes changes in the liquidity preference, money supply, inflation and quantity of stocks, which in turn affect interest rate and economic growth. This liquidity framework provides a simpler analysis of the effects from changes in income, the price level and the supply of money. The definition of money according to Keynes includes currency and checking account deposits which is time-lagged. As inflation rate rises, the expected returns money falls relative to the expected returns on bonds and bonds which depreciate. Consequently, the opportunity costs of doing business in Nigeria increases. The shortage in the supply of US dollars, British Pound sterling, and increases in their demand in Nigeria is evident of the challenges of exchange rate volatility.

EMPIRICAL LITERATURE

Ugochuchukwu, (2015) in his study on exchange rate volatility and economic growth (1980-2012) adopted the general autoregressive conditional heteroscedasticity (GARCH) technique to estimate the relationship between the two variables. The results showed a negative response of economic growth to exchange rate volatility. This finding was contrary to Izilein and Okoh,(2015) who also employed the GARCH technique for the period 1980-2013, but rather found a positive relationship between exchange rate and economic growth in Nigeria. They recommended greater diversification of the productive and export base of the economy to bring about a stable exchange rate. A similar study was conducted by Jugu and Soeding,(2015) using multiple regression analysis, and covering 1981-2013. This study also confirmed the existence of a significant positive relationship between exchange rate and economic growth in Nigeria. It recommended that the government and other relevant agencies should put measures in place that would boost exports of finished products. Adikibe,(2008) examined the impact of exchange rate instability on selected macroeconomic variables in Nigeria for the period 1990-2004, using the ordinary least square(OLS) technique in a regression analysis with time series data. The study confirmed the existence of significant positive relationship between exchange rate variability and economic growth, the latter proxied by Gross Domestic Product (GDP). The gap left by this study is that it concentrated only on foreign exchange mainly being demanded for investment purposes, whereas there are various purposes (social and political) for the demand for exchange rate in Nigeria, aside from investment. Accordingly, policies should be directed towards encouraging foreign exchange demands for more capital goods than consumption goods. Oyovwi,(2012) in his study found mixed results; that in the short-run, exchange rate volatility has positive relationship with economic growth, while in the long-run, it has a negative relationship. Similarly, Akpan and Atan (2012) examined the effects of exchange rate movements on economic growth in Nigeria using the generalized method of moments (GMM) technique. The estimated results showed that there was no evidence of a strong direct relationship between changes in exchange rate and output growth. Their conclusion was that improvements in exchange rate management are necessary but not adequate to revive the Nigerian economy. Isola et al, (2016) investigated exchange rate fluctuation and economic growth in Nigeria between 2003-2013. The autoregressive distributed lag (ARDL) model was

employed for estimation and data analysis. The empirical results showed that exchange rate fluctuation has no effect on economic growth in the long run. They recommended that the Central Bank of Nigeria, (CBN) should strengthen exchange rate control policies. In a similar study on exchange rate volatility and economic growth in Ghana, Alagidede and Muazu,(2016) adopted the vector autoregression method. The results demonstrated that real exchange rate and real income were significantly co-integrated. The real exchange rate negatively and significantly impacted on economic growth, as a 1% increase in exchange rate volatility led to -0.8% (decrease) in economic growth, using GDP as a proxy for the latter. Thus, excessive exchange rate volatility is detrimental to economic growth. They recommend, amongst other things, significant improvement in exchange rate modeling and forecasting by the Central Bank. Incorporating the impact of asset prices in domestic monetary policy could improve both the transparency and functioning of foreign exchange market. Musyoki, Pokhariyal and Pundo,(2012) studied the impact of real exchange rate volatility on economic growth in Kenya. They found that real exchange rate volatility reflected a negative impact on economic growth in Kenya. Levy-Yeyati and Sturzenegger,(2002) in their study using cross-country regression data indicate that for most developing countries, greater exchange rate volatility is strongly associated with higher growth and less output fluctuations. Celasun,(2003) in his research has shown that for oil-based economies, terms of trade and output volatility were often of significant consideration. For these economies, oil price increases often results in boom of domestic consumption, increased capital inflows and investment, real exchange appreciations that are harmful to development of the non-resource sectors, as predicted by the Dutch Disease hypothesis. Conversely, a fall in oil prices has the opposite effect. Overall, oil price volatility makes government revenues largely unpredictable and exchange rate volatility holds sway. However, these volatilities can be addressed through fiscal policies that promote domestic demand over time, thereby enabling the exchange rate play a supporting role of facilitating rapid real exchange rate adjustment. Azid et al.,(2005) investigated the impact of exchange rate volatility on economic performance in Pakistan, with a case study of the manufacturing sector. The study employed the GARCH method to test the relationship. The results obtained showed a positive but insignificant impact of exchange rate movement on manufacturing output performance.

METHODOLOGY

The mechanism through which exchange rate volatility transmits on economic growth has to be understood within the framework of quantitative and qualitative analysis, anchoring on economic theories and principles. Macroeconomic variables directly related to this framework of analysis are selected to include the real gross domestic product, exchange rate, interest rate, balance of payment and inflation rate. Others are credits to the private sector, index of agricultural production, foreign reserves and manufacturing output. Secondary data are being sourced for this study. Secondary, time series data are used to capture the effect of exchange rate volatility. The model adopted is also time series model; a dynamic distributed-lag model. It is a causal dynamic economic model that shows the long-run and short-run relationship as the parameters are restrictedly estimated. In this method, the study also attempts to evaluate the multiplier, elasticity effects of exchange rate volatility on the real sector via the agricultural sector, small and medium scale industries and manufacturing subsector. The restricted long-run model is then imposed as a solution of a matching dynamic short-run. This restricted short-run model is an error correction model that captures the trend behavior of exchange rate, inflation, balance of payment and interest rates on the real sector of the economy, using the proxy of real gross domestic product (RGDP). The stability or non-stability was easily predicted in this form of estimation. This is not unusual in the empirical econometrics literature; Maddala and Kin,(1998), Hendry,(1995), and Hamilton,(1999).

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Model Specification

This study adopts the multiple linear regression models. The functional relationship between the explained and the explanatory variables is stated thus:

$$RGDP = f(INFR, MANQ, INDAGRQ, CPS, BOP, FRS, EXCHR) \text{-----1}$$

$$RGDP = f(EXCHR) \text{-----2}$$

Where RGDP= Real Gross Domestic Product

INFR= Inflation Rate

MANQ= Manufacturing Output

INDAGRQ= Index of Agricultural Production

CPS= Credit to the Private Sector

BOP= Balance of Payment

FRS= Foreign Reserves

EXCHR= Exchange Rate

The two functions are transformed into regression models thus:

$$RGDP_t = \beta_0 - \beta_1 INFR_t + \beta_2 MANQ_t + \beta_3 INDARQ_t + \beta_4 CPS_t + \beta_5 BOP_t + \beta_6 FRS_t + \beta_7 EXCHR_t + \mu_t \text{-----1b}$$

$$B_1 < 0, \beta_0, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7 > 0$$

$$LRGDP_t = LEXCHR_t = LEXCHR_{t-1} = LEXCHR_{t-2} \text{-----2b}$$

Where L= Lag operator

Let EXCHR= X, and LRGDP_t = Y_t

$$Y_t = L(LX_t) = LX_{t-1} = LX_{t-2} \text{-----2c}$$

$$Y_t = \beta_0 + \beta_1 X_{t-1} + \beta_2 X_{t-2} + \dots + \beta_p X_{t-p} \text{-----2d}$$

The notation of lag operator was introduced into the dynamic models so that the long-run multiplier effect of exchange rate volatility can be easily computed. Exchange rate volatility in one time period(t) can extend its effect on economic growth beyond to other time periods (t-1, t-2, t-3) , and in the long run (t-p). Economic growth is affected through the exogenous explanatory variables such as the inflation rate (INFR), manufacturing output(MANQ), index of agricultural production (INDAGRQ), credit to the private sector(CPS), balance of payment(BOP), foreign reserves (FRS), and exchange rate (EXCHR). The short-run and long-run responses are presented in table1

Table1: The Short-run and Long-run Responses

Period	Model1	Model2
t=1	L_0	L_0
t=2	$L_0 + L_1$	$L_0 + L_0 \beta_1 = L_0(1 + \beta_1)$
t=3	$L_0 + L_2$	$L_0 + L_0 \beta_1 + L_0 \beta_2 = L_0(1 + \beta_1 + \beta_2)$
Long-run(tp)	$L_0 + L_p$	$L_0(1 - \beta_p)$

Source: Authors' computation

The long-run multipliers $L_0 + L_p$ and $L_0(1 - \beta_p)$ depend on the values of the sample estimates of L_0 and β_p .

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Table 2: DATA PRESENTATION

Year	RGDP%	INFR %	MANQ %	INDAGRQ (1990 prices)	CPS%	BOP%	FRS \$M	EXCHR N/USD
1996	2.4	30.4	-4.1	62.5	3.4	-0.7	4541.4	21.8861
1997	0.5	10.8	-2.5	64.7	5.2	-0.6	3403.9	21.8861
1998	1.4	7.9	-0.9	66.9	4.8	-0.2	7222.2	21.8861
1999	2.6	6.9	-4.6	69.3	9.5	-0.4	7107.5	92.6934
2000	4.5	7.1	-5.5	95.1	10.3	-2.5	5424.6	102.1052
2001	3.5	18.9	-3.8	100.0	12.5	-2.2	9386.1	111.9433
2002	2.8	13.1	1.1	111.5	16.2	-2	10267.1	120.9702
2003	6.3	13.9	-3.9	119.2	17.8	-2.1	7681.1	129.3565
2004	6.8	15.4	-2.5	122.6	13.1	-1.7	7467.8	133.5004
2005	5.2	16.9	-3.3	126.4	13.2	-1.8	16955.0	132.1470
2006	6.4	8.4	3.5	128.5	13.1	-1.2	28279.1	128.6516
2007	4.4	5.4	2.8	134.4	24.2	-2.3	51333.2	125.8331
2008	4.8	12.0	4.2	137.7	33.7	10.7	53000.4	118.5669
2009	4.2	12.6	6.4	141.0	38.4	9	42382.5	148.8802
2010	4.5	13.8	6.5	145.2	15.4	5.1	32339.3	150.2980
2011	3.7	10.9	6.8	149.2	12.5	3.9	32639.8	153.86716
2012	2.4	12.2	6.5	153.7	11.8	3	43830.4	157.4994
2013	3.6	9.0	6.4	154.9	12.6	4.4	42847.3	157.3112
2014	2.5	8.0	10.9	165.4	14.7	3.6	34241.5	158.5526
2015	1.6	9.0	7.3	175.5	14.2	0.2	28284.8	193.2793
2016	-5.4	16.0	-5.7	186.9	15.7	-1.8	26990.6	253.4923
2017	2.8	12.6	0.8	160.7	15.7	3.4	46210.2	350.6528

Sources: CBN Statistical Bulletin, 2018; CBN Annual Report and Statement of Accounts (Various Issues); CBN Money and Credits Statistics, (2013, 2015, 2017).

The trading of currency and bank deposits determined in particular currencies takes place in the foreign exchange markets. Transactions in the foreign exchange markets determine the cost of foreign goods and financial assets. From table 2, the balance of payments and other statistics show that Nigeria's international transactions are unfavorable for most of the times.

REGRESSION RESULTS

Dependent Variable: RGDP

Method: Least Squares

Date: 04/15/18 Time: 19:01

Sample: 1 22

Included observations: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.188185	3.293261	1.879045	0.0812

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INFR	-0.038968	0.125059	0.311596	0.7599
MANQ	0.366463	0.242997	1.508098	0.1538
INDAGRQ	0.056919	0.042315	-1.345116	0.2000
CPS	0.179485	0.106798	1.680610	0.1150
BOP	-0.265646	0.280368	-0.947489	0.3595
FRS	-1.98E-05	7.40E-05	-0.267545	0.7930
EXCHR	-0.010395	0.017361	0.598740	0.5589
<hr/>				
R-squared	0.667022	Mean dependent var		3.250000
Adjusted R-squared	0.599467	S.D. dependent var		2.536730
S.E. of regression	2.659901	Akaike info criterion		5.069742
Sum squared resid	99.05100	Schwarz criterion		5.466485
Log likelihood	-47.76716	Hannan-Quinn criter.		5.163203
F-statistic	0.728594	Durbin-Watson stat		1.381382
Prob(F-statistic)	0.651430			

The la variables are used to determine and test for the order of integration of the non-staionary macroeconomic variables. No spurious regression was found, the variables after applying the lag operators have common trends and the residuals are stationary. Since the variables were integrated in the same manner, co-integration was adopted. The results are summarized as follows:

Dependent Variable: RGDP

Method: Fully Modified Least Squares (FMOLS)

Date: 04/15/18 Time: 19:09

Sample (adjusted): 2 22

Included observations: 21 after adjustments

Cointegrating equation deterministics: C EXCHR INFR FRS

Long-run covariance estimate (Bartlett kernel, Newey-West fixed bandwidth

= 3.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MANQ	0.400290	0.270079	1.482125	0.1621
INDAGRQ	0.051705	0.048782	-1.059921	0.3085
CPS	0.287015	0.121293	2.366302	0.0342

BOP	-0.448709	0.310758	-1.443917	0.1724
C	4.750767	3.599181	1.319958	0.2096
EXCHR	0.008752	0.019013	0.460307	0.6529
INFR	-0.017340	0.236633	0.073276	0.9427
FRS	2.47E-05	8.84E-05	-0.279432	0.7843
<hr/>				
R-squared	0.776698	Mean dependent var	3.290476	
Adjusted R-squared	0.566618	S.D. dependent var	2.592085	
S.E. of regression	2.917240	Sum squared resid	110.6337	
Durbin-Watson stat	1.703388	Long-run variance	8.406904	

Dependent Variable: RGDP

Method: ML - ARCH (Marquardt) - Normal distribution

Date: 04/15/18 Time: 19:13

Sample: 1 22

Included observations: 22

Convergence achieved after 39 iterations

Presample variance: backcast (parameter = 0.7)

GARCH = C(9) + C(10)*RESID(-1)^2 + C(11)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	7.270675	2.445550	2.973022	0.0029
INFR	-0.038359	0.208103	-0.184326	0.8538
MANQ	0.378005	0.224261	1.685564	0.0919
INDAGRQ	0.065660	0.086737	-0.757006	0.4490
CPS	0.167521	0.089461	1.872563	0.0611
BOP	-0.109215	0.396822	-0.275224	0.7831
FRS	-1.27E-05	0.000139	-0.091739	0.9269
EXCHR	-0.013414	0.052593	0.255057	0.7987

Variance Equation

C	4.788332	5.424358	0.882746	0.3774
RESID(-1)^2	0.632278	0.685073	0.922935	0.3560
GARCH(-1)	-0.947182	0.913015	-1.037422	0.2995

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R-squared	0.651170	Mean dependent var	3.250000
Adjusted R-squared	0.573245	S.D. dependent var	2.536730
S.E. of regression	2.862400	Akaike info criterion	4.969019
Sum squared resid	114.7067	Schwarz criterion	5.514540
Log likelihood	-43.65921	Hannan-Quinn criter.	5.097527
Durbin-Watson stat	1.100900		

Models for time series data are tested for autocorrelation usually with the assumption of homoschedastic disturbances. This is why a form of heteroskedasticity that can be encountered in time series models as these, the autoregressive conditional heteroschedasticity (ARCH) and its generalized form (GARCH) are adopted for a separate regression presented in table 3. This concept by Engle (1982) is adopted and applied to data on exchange rate volatility because the foreign exchange market is a volatile market. In speculative markets like the exchange rate and stock markets, you can observe that large and small errors tend to occur in clusters. Macroeconomic data from the past and recent past most certainly influences the conditional disturbance variance. Therefore the conditional variance or the volatility in exchange rate is tested and regressed in this procedure. Two distinct model specification are considered; one for the conditional mean of the dependent variable (RGDP), and one for the conditional disturbance variance.

Dependent Variable: RGDP

Method: ML - ARCH (Marquardt) - Normal distribution

Date: 04/15/18 Time: 19:17

Sample: 1 22

Included observations: 22

Failure to improve Likelihood after 17 iterations

Presample variance: backcast (parameter = 0.7)

GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	4.097516	1.095240	3.741203	0.0002
EXCHR	-0.005914	0.004943	-1.196436	0.2315
Variance Equation				
C	3.450162	19.20181	0.179679	0.8574
RESID(-1)^2	-0.113461	0.942931	-0.120328	0.9042
GARCH(-1)	0.569482	2.358591	0.241450	0.8092

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R-squared	0.731675	Mean dependent var	3.250000
Adjusted R-squared	0.616741	S.D. dependent var	2.536730
S.E. of regression	2.557876	Akaike info criterion	4.992242
Sum squared resid	130.8546	Schwarz criterion	5.240206
Log likelihood	-49.91466	Hannan-Quinn criter.	5.050654
Durbin-Watson stat	1.222567		

DISCUSSION OF FINDINGS

The Nigerian economy seems to lack stability in growth due to the exchange rate volatility. The behavior of exchange rate is such that both in the short-run and long-run, it explodes in a volatile manner, does not converge in a straight or in a cyclical way. This volatile behavior is transmitted to economic growth through the explanatory or exogenous variables. An analysis of Nigeria's exchange rate behavior from 1970-2017 showed that there exists a causal effect/relationship between the exchange rate volatility and macroeconomic variables such as inflation, balance of payments, unemployment, and the gross domestic product(GDP) growth rate. The periods of analysis saw a fluctuation in the naira/USD and naira/Pound sterling exchange rates and other major international currencies. Economic growth and exchange rate volatility are inversely related. High volatility can diminish or dwarf economic growth, however, growth comes with volatility. Exchange rate volatility feeds on macroeconomic instability. Nigeria has suffered high inflation and unemployment rates which are transmitted by pass through effect of exchange rate volatility caused by global oil price fluctuations. The latter is caused by monolithic structural dependence on crude exports. Consequently, exchange rate volatility is a major cause of macroeconomic instability in Nigeria. For instance, while the exchange rate moved from N8.04/1USD in 1990, to N22.05/1USD in 1993, and again to N81.65/1USD in 1995, the inflation rate moved from 8.04% in 1990 to 57.2% in 1993 and 72.8% in 1995. Exchange rate volatility has negative effects on real sector growth through import-export gap, domestic trade and capital flows, investment, investors' confidence, local enterprises' productivity, income, consumption as well as the balance of payment and general distortions in the economy. It is also found that bi-directional relationship exists between the real gross domestic product(RGDP) and exchange rate (EXCHR). The low demand for Nigeria's naira as a result of domestic structural deficiencies, penchant for the dollar and Nigeria being a demand side economy has led to the depreciation of the naira. This in turn has the following negative multiplier effects on the real sector of the economy; galloping and geometric rise in inflation rate due to the cost of hedging foreign exchange risk, a negative impact on Nigeria's stock market, sluggish growth in industrial and agricultural output, as well as a depletion in external reserves, a negative balance of payment and trade as a result of a fall in export trade in oil and non-oil exports, high interest rate that discourages investment, high cost of domestic production, and a fall in industrial sector output. This finding is in line with Anoka and Takon,(2014) who found that exchange rate, like other macroeconomic variables such as inflation rate, interest rate, unemployment rate, money supply and balance of payment, is a strong indicator of macroeconomic performance. It can be used to evaluate the strength and weakness of the economy. If the domestic deficient factors leading to exchange rate volatility are treated, it would lead to macro-financial stability in Africa and Nigeria in particular. Exchange rate volatility affects growth in all sectors; agriculture, manufacturing, trade, transportation, information and communication, mining and quarrying, small and medium scale enterprises inclusive. On the other hand, adequate growth in these other sectors can improve

exchange rate stability. It affects inflation, government expenditure on infrastructure, education and health, unemployment, investment, consumption, trade and import restrictions. The inflationary effect of fuel price increase for instance, has contributed to a rise in misery index due to exchange rate volatility. Inflation rate jumped from 8.7% in 2015 to 13.7% in 2016. Within the same period, Naira to USD exchange rate increased from N219 to N347 respectively. The RGDP growth rate fell from 3.96% in 2015 to -0.36% in 2016, accompanied by erosion in the value of the naira in the FOREX market, with an evaporation of confidence and falling foreign direct investment (FDI), due to exchange rate effect.

A comparative analysis of selected countries exchange rate shows that in Africa; the Nigerian naira, the South African rand, the Kenyan shilling, the Egyptian pound, and the Ghanaian Cedi, all depreciated against the US dollar, by 16.10%, 33.79%, 12.91%, 9.51%, and 18.32%, respectively. In North America; the Canadian dollar, and the Mexican peso depreciated respectively by 18.97% and 16.80%, against the US dollar. The Brazilian real, the Argentine peso, and the Colombian peso equally depreciated by 48.87%, 52.66% and 33.58%, respectively against the US dollar. The British pound sterling, euro, and the Russian ruble depreciated against the US dollar by 6.25%, 10.84% and 19.94% respectively. In Asia, the Japanese yen, the Chinese Yuan and the Indian rupee also depreciated against the US dollar by 0.35%, 7.27% and 7.04% respectively, against the US dollar. In all, the Japanese yen was the least depreciated among the currencies surveyed, while the Argentine peso witnessed the largest depreciation. China maintains an exchange rate that is virtually pegged to the U.S. dollar. This led to pressures to devalue when the dollar was strong and China's competitors were devaluing and to appreciation pressures when the dollar weakened while China's trade surplus soared. In the days of central planning, when China was essentially a closed economy and all foreign trade was planned and carried out by government, the country maintained a fixed and over-valued exchange rate. For a remarkable fifteen years (1955-1970), it did not vary from 2.46 Yuan to the dollar. The foreign exchange system was gradually reformed with a view to removing disincentives to exports caused by the overvaluation. Foreign exchange retention schemes and foreign exchange swap markets were introduced in the 1980s, which, in addition to occasional devaluations of the official exchange rate, allowed for a further depreciation of the currency. Despite substantial liberalization, China's foreign exchange market remains a restricted one. Domestic enterprises do not participate directly, but must sell their foreign exchange to a designated bank, of which there are over 300, and buy foreign exchange upon proof of commercial contracts. All trading is conducted among these banks. Each is assigned a foreign exchange position by the central bank, and must enter the market when it is not met, borrowing from banks with excess holdings or lending to those with a shortage. Any overall surplus is bought up by the central bank, and any deficit met by central bank sales, in order to maintain the RMB exchange rate with the dollar. Conversely, Nigeria is a dependent economy, and remains on the periphery of the world's capitalist economy. Infrastructural deficiency is holding down investment and industrial production, as well as non-oil exports. Government is expected to use the revenue derived from oil exports to fix the infrastructure problem, but this revenue is adversely affected by exchange rate volatility. Big and small businessmen are hard hit by exchange rate problems encountered in trade. Exporting and importing entrepreneurs and small scale industrialists are finding it difficult to cover their expenses, with dwindling local manufacturing. Export-oriented investment and reliance on domestic production for consumption and exports hold the key to putting the Nigerian economy on the path of recovery and sustained growth. This will ascertain the real value of the naira and make it competitive with foreign currencies such as the US dollar, Japanese yen, Chinese Yuan and the British pound. To allow a weak currency like the naira which is not known among the basket of

recognized currencies of the Western world to be subject to the vagaries of the international market forces is very harmful to the domestic economy.

In international finance and monetary policy, exchange rate is the price of the naira in terms of other currencies. Its volatility affects the economy and our daily lives. Nigeria's business has become less competitive with their foreign counterparts. When the exchange rate is so high (say at N362/USD as at March 2018), the naira becomes less valuable relative to foreign currencies, foreign goods(including raw materials) become expensive(with low indigenous technology innovation) for Nigerian consumers and produces(entrepreneurs and industrialists), and Nigerian goods and services become more cheap for foreigners. The aggregate income earned by Nigeria is low, and the standard of living of Nigerians is low too. For the real sector impact, high exchange rate volatility increases credit risk, firms and enterprises run at very low or no profits. Credits to the private sector (CPS) are less productive, increasing the moral hazard (hazard of default) and problem of adverse selection associated with unsuccessful loans. CPS is used to import agricultural and industrial inputs (raw materials) which are very expensive due to high exchange rate volatility. The transmission mechanism is on low growth of RGDP.

CONCLUSION

Exchange rate policy and its volatility have many implications on the Nigerian economy. The key effects identified are on the manufacturing sector, agricultural sector, small and medium scale enterprises, and balance of payment, foreign reserves, net exports, oil revenue and inflation. In the foreign purchases or net exports, funds transferred from Nigeria to the trading partners have to be converted into US dollars or Euros in the foreign exchange market. Consequently, exchange rate volatility has produced substantial and instrumental fluctuations in the balance of payment, accompanied by inconsistent policies, as well as domestic structural inefficiencies and external economic dependency. This is why the naira is weakened considerably instead of its appreciation. There is high cost of imports, including industrial raw materials and agricultural inputs, making domestic production highly non-competitive in the global and domestic markets and non-attractive too. On a more general level, high exchange rate volatility has an effect on the overall health of the economy; the interest rates, the willingness to save and invest. Most domestic and foreign investment that would ensure more jobs are put on hold or postponed, with negative multiplier effects on unemployment, reduced income and shrinking consumption that lowers the standard of living and limits economic growth. Exchange rate volatility has significant effects on individuals, households, businesses, financial markets, financial institutions and the overall economy. Aggregate investment is affected by uncertainty, ambiguity on exchange rate. Consumption is affected by foreign exchange shortages, increase in nominal price of petrol and high electricity tariffs. Export is affected by a fall in oil price as a major export commodity and product Ion shortfalls, inflation, petrol scarcity and depletion of foreign reserves. However, the positive side is that, it has reduced Nigeria's demand and supply of foreign currencies, goods and services, which might payoff for the real sector in the long run, if consistency and diversification is maintained.

RECOMMENDATIONS

The faster Nigeria evolves indigenous technology innovation in all sectors, the better for the country. This will insulate the economy from undue external dependency and currency manipulations. At this point, the level of imports will be lower than exports, the balance of payment, exchange rate, foreign reserves will improve. The exchange rate will be relatively stable and the real sector performance will be better for it. Exchange rate policy is connected analytically and practically with the maintenance of capital controls and to monetary policy. The monetary policy committee (MPC) is likely to ease its tightened monetary stance to ensure that new growth trajectory is sustained. The MPC decision on exchange rate policy and currency

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control should encourage investment and stock market activities. Flexible exchange rate policy has a long-term impact of attracting capital inflows. In so far as poverty reduction is dependent on economic growth, stability and the capacity to carry out an independent macroeconomic policy, it is also influenced through these linkages by exchange rate policy. Indeed, exchange rate policy should support or complement other domestic economic policies for achieving development goals, employment and poverty reduction. In this respect, the discussion of the future of the exchange rate regime in Nigeria cannot be disconnected from the issue of external financial liberalization and capital mobility. Considered from a pro-poor growth perspective, exchange rate policy should stimulate domestic production and exports, including manufacturing or imports substitution. It means that a significant level of self-reliant production and consumption is required to conserve foreign reserves. Rural areas agricultural processing and development of infrastructure, health, telecommunication, transport, water production and supply can work towards rapid poverty reduction, enhance growth and bring benefits to the poor. This policy is aimed to achieve macroeconomic stability. In developing countries, an over-valued exchange rate is often held to penalize farmers, small and medium scale enterprises, and devaluation in connection with stabilization and liberalization programs is thought to reduce urban bias. However, in the Nigerian context of significant inequality in the distribution of productive assets and in trade orientation, such a devaluation policy, as prescribed by IMF and World Bank, does not systematically benefit rural activities and incomes or reduce urban bias. If devaluation of the Naira must take place, then the preconditions would be to take care of various forms of inequality.

Without its considerable external financial strength (foreign exchange reserves), Nigeria's economy has become extremely vulnerable resulting to severe domestic financial fragility. In this scenario, devaluation implies disastrous vulnerability. Maintaining external financial strength through exchange rate policy during economic transition is imperative for Nigeria. Nigeria should accumulate large foreign exchange reserves through diversified aggressive exports like China. Large reserves would provide a buffer against potential speculative attacks upon the Naira. This study also recommends export promotion measures such as entrepreneurship development, export tax rebates and concessional loans to export enterprises.

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WHAT DRIVES FOREIGN DIRECT INVESTMENT INFLOWS IN CHINA? ARDL BOUND TESTS AND ECM APPROACH

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ABSTRACT

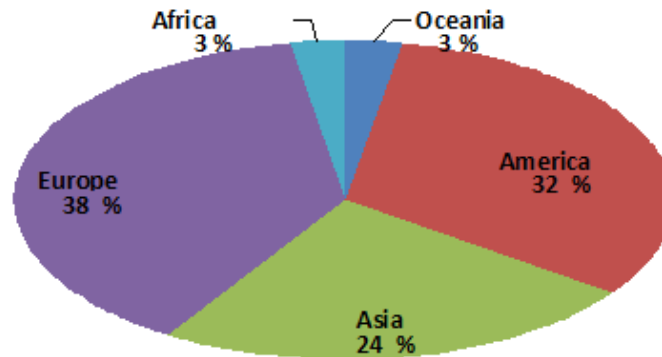
The aim of this study is to investigate the variables that drive foreign direct investment in Chinese economy. Recent past studies have shown conflicting results which make further study on this subject matter imperative in the recent times. Data was collected from the United Nations Conference on Trade and Development and World Bank Indicator from 1990– 2017 and the study employed the Autoregressive Distributed Lag (ARDL) model and Error Correction Model (ECM) to address its objective. Consequently, the major findings that originated from the work could be submitted as follows. The result of ECM term confirmed that about 19% of the total disequilibrium in the previous year would be corrected in the current year. Therefore, it will take about five (5) years for the system to adjust back to its long run equilibrium path. Meanwhile, the principal drivers of FDI inflows in China are the large market size and impressive growth rate of the economy. However, GDP per capita could not derive FDI inflows in China. Based on the findings that emerged in this work, it is mandatory this paper makes these recommends for both the policy makers and the future researchers in China that whenever sporadic inflows of FDI is the target of the policy makers in this country, the Chinese government should manipulate the market size and growth rate of its economy. In another words, the government should embark on policy measure that will expand the market size and growth rate of its economy exponentially.

Keywords; China, FDI Inflows, Principal Drivers.

JEL Classification: F21, F23, F36

INTRODUCTION

During the era of mercantilist trade was the driving force behind the integration of the global economy. Meanwhile, the proliferation and advancement of digital technologies in the 21st century have facilitated the free movement of capital and knowledge across the world. Consequently, foreign direct investment (FDI) has been the most popular variable integrating the world economy through the interdependence of national economies in the last four decades. The most industrialized economies of the world like the US, the UK, and other European countries have always been the popular destinations of FDI inflows in the time past. As a matter of fact, 70% of the global FDI inflows have been received by the America and the European countries between 1980 and 2017 while 24%, 3% and 3% went to Asian, African and Oceanian continents respectively. **Figure 1:**

The Geographical Distribution of Global FDI Inflows 1980-2017

Source: Author's Computation (2019) from (UNCTAD, 2018)

In the recent times, there has been a paradigm shift in the inflows of foreign direct investment in the global economy. It is instructive to state that from the year 2010, the focus of foreign investors have been on the newly emerging economies of the world. As a result of this China, Hong Kong, Singapore, Brazil, India, Russia and South Africa came to global limelight regarding FDI destinations. However, the regional distribution of FDI inflows is uneven, in favour of East Asian economies, with the domination of China after 1990. The aftermath effect of the 1979 economic reform in China has brought a colossal success in economic transformation with an average growth rate of 8.8% for the period 2007 to 2017. It is not a gainsaying that the impressive performance of the Chinese economy has been accompanied by the gradual inflows of FDI in the last two decades. It has been observed that FDI inflows expanded sporadically from over US\$72 billion in 2006 to US\$136 billion in 2017. In the same vein, the spillovers of FDI to Chinese economy cannot be overemphasized because in 2006, 28% of the industrial value-added output in China was emanated from foreign invested enterprises (FIEs) and 21% of taxation in China. Similarly, these enterprises accounted for 11% local employment in the country (China Investment Yearbook, 2006).

Moreover, since 1994, China started to guide its FDI inflows with a view to meeting its economic developmental targets. This brought about the implementation of the Provisional Guidelines for Foreign Investment Projects in 1995 which summarized the FDI projects into four compartments namely: encouraged, restricted, prohibited and permitted. It is worth of note that the subsets of encouraged projects were those projects domiciled in infrastructure or underdeveloped agriculture; those with advanced technology, or manufacturing new equipment/materials and those which were export-oriented with the capacity to satisfy market demand. The classified restricted projects were as follows: those projects under experiment or monopolized by the nation, with low technologies, and those whose production exceeded domestic demand; and those engaged in the exploration of rare and valuable mineral resources.

Whereas those projects that jeopardized national security or harmed the public interest; those caused damages to the environment, natural resources or human health and those which used sizeable amounts of arable land were classified as the prohibited projects. Meanwhile, the projects did not fall in any of the above groups were tagged as permitted project.

In addition, an attempt to open its economy to the global community, China joined the World Trade Organization (WTO) in 2001. This necessitated the country to revise its regulations in accordance with the requirement of rules of WTO for trade and investment during the transitional period ended in 2005. As a result of this, tariff for imports was sliced from 23% on

average basis to 9.4% and Quotas for most import productions were relaxed likewise in 2001 (Long, 2005). The advent of the China in the WTO has orchestrated the attraction of more export-oriented FDI into the country vis-à-vis the advantage of its lower labour cost.

Consequently, China started competing with the US and UK in 2016. As a matter of fact, China received the second highest global FDI inflows after the US in 2017. However, in the first half of 2018, it was recorded that China received the largest quantum of the global FDI inflows with USD 126 billion, in which the United Kingdom came second with USD 66 billion and the United States occupied the third position with USD 57 billion concurrently (OECD, 2018).

Meanwhile, an attempt to empirical verify the critical variables that derive FDI inflows in China has sparked off debate among the scholars and the policy makers in the recent time. In the same vein, literature has indicated divided opinions ranging from the huge domestic market, impressive growth rate, low labour cost, improvement of infrastructure, gross capital formation, governance efficiency and regulatory quality openness to trade, and rule of law as indispensable factors that derive cross border investment in this country. See Jadhav and Katti (2012), Jadhav (2012), Agrawal et al (2011), Vijayakumar et al. (2010), Sahoo (2006). In view of the above conflicting results, re-examination of this subject matter becomes highly imperative in this study. Therefore, this paper examines the critical variables that propel FDI inflows in China. In addition, the uniqueness of this work also lies in adoption of new methodology in which the majority of past studies have overemphasized.

The arrangement of this work follows this pattern: in section 1, provides the background information for the study. Section 2 gives the theoretical and empirical review of relevant literature relating to the factors that derive FDI inflows in emerging economies in particular and developing countries as a whole. Consequently, section 3 presents data and model specification alongside with empirical results, summary, conclusion and policy recommendation.

2.1 Literature Review

This section presents recent archive of past studies regarding factors that derived FDI inflows in Asia countries with a view to observing the positions of various scholars regarding this subject matter of this study over time.

Agrawal et al (2011) analyzed the link between FDI and economic growth in both China and India between 1993 and 2009 with the application of modified growth model and Ordinary Least Square model. It was discovered from the study that larger FDI went to China more than India due to the larger market size in the former than in the latter.

Tiwari and Mutasque (2011) employed a panel analysis in examining the linkage between FDI and economic growth in Asian countries between 1986 and 2008. The conclusion of the authors established that economic growth is propelled in those countries by important factors like FDI, Labor, capital and exports. In another perspective, Galina and Long (2007) investigated the spillovers and productivity of FDI in China with the aid of a firm-level data set. The study discovered a mixed result regarding FDI spillovers on the productivity of domestic firms in China. It is worth of note that many positive results in the study was largely due to aggregation bias or endogeneity problem of FDI. Meanwhile, after the bias has been adjusted, the evidence of systematic positive effect of FDI disappeared.

However, Kaliappan et al. (2015) adopted a static linear panel data analysis to empirically verify the determinants of services FDI inflows in ASEAN economies between 2000 and 2010. The authors concluded that availability of improved infrastructure, human capital, trade openness and market size had a positive and significant association with services FDI inflows. Whereas the reverse was the case of inflation and services FDI inflows. While examining the variables

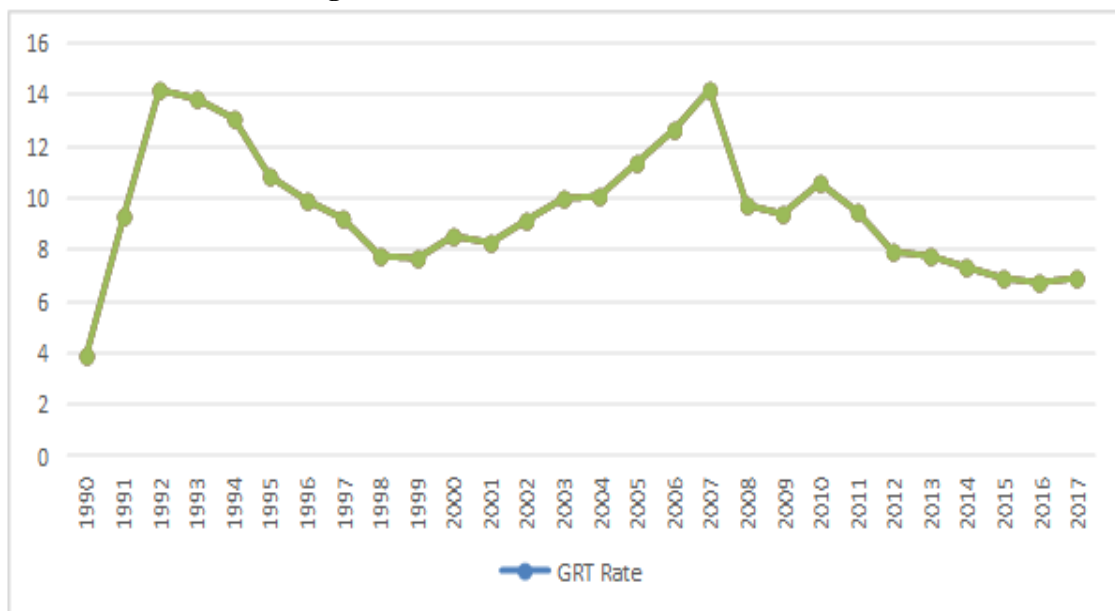
that derive FDI inflows in China and India, Wei (2005) submitted that cheaper cost of labor, lower country risk, cultural similarity and geographic closeness to OECD countries were principal variables that propelled FDI inflows into India. Also, the study found out that the reasons why there was a wide gap between FDI inflows in China and India was largely due to the capacity of China to attract much higher FDI from OECD countries in connection with its larger market size and higher external trade relation with OECD countries.

Consequently, Taqadus et al (2014) compared the spillovers of foreign direct investment on the economies of South Asian states with China with the application of OLS and granger causality test. The authors argued that the Chinese economy was much faster growing economy than South Asia sub region.

Finally, the above reviewed literature show that studies on factors that derive FDI inflows in Asian Tigers in general and China in particular are still on going and there is not yet a consensus in the literature. Hence, the relevance of this work

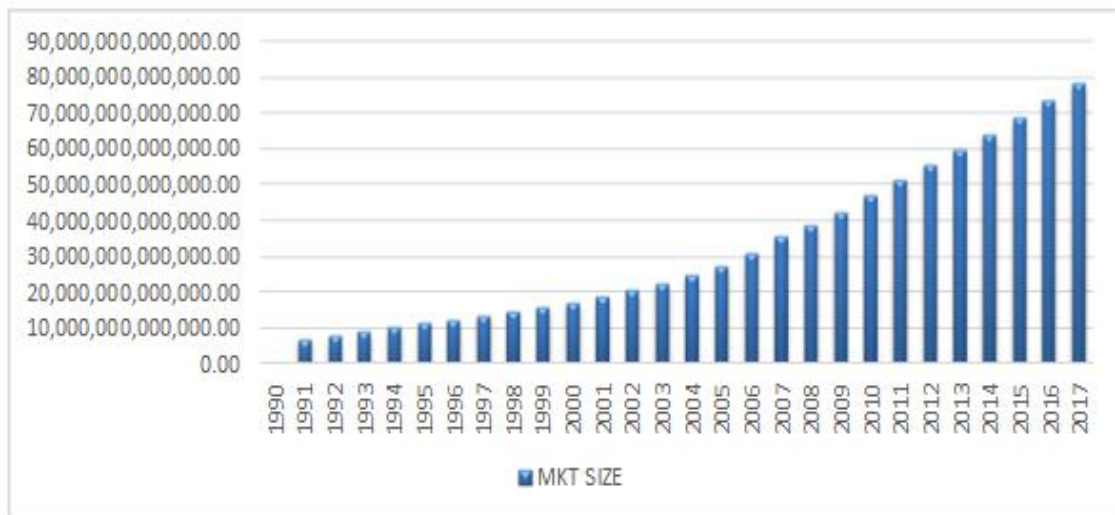
2.2 An Overview of Some Selected Indicators that Derive FDI Inflows in China

Figure 1: Economic Growth Rate in China



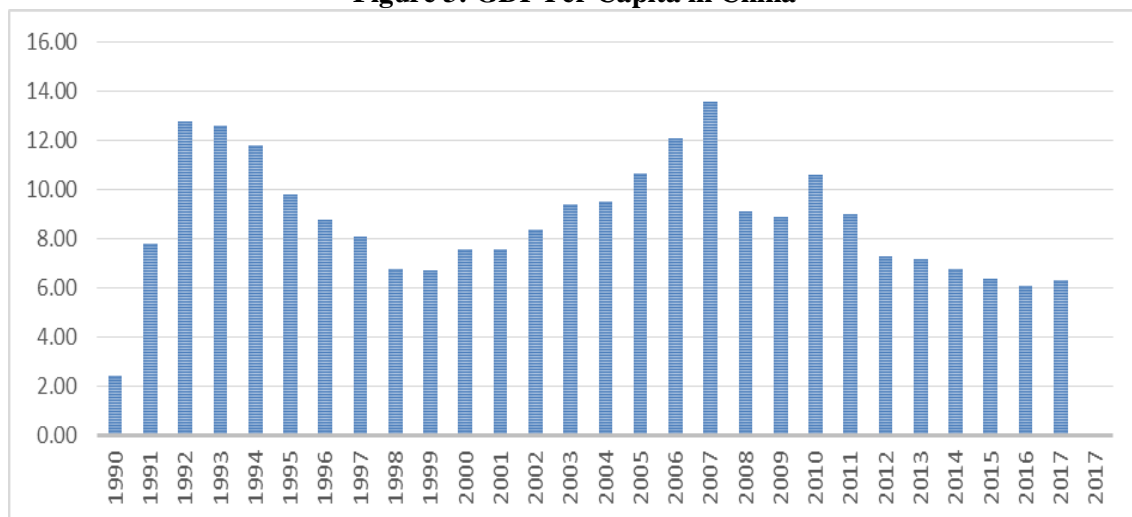
Source: Authors' Computation (2019) from WDI, 2018

Figure 1 shows the growth rate in China. This measures the economic performance of the country from 1990 to 2017. The figure above shows that the country registered a very sharp growth rate between 1991 and 1992 before it started to decline gradually from 1993 to 1999. However, year 2000 marked a turning point in the country for the recovery of the growth rate, as such the growth rate moved in upward direction until it got to its peak in 2007. There was a sharp decline in 2008 and 2009, this might be the result of spillover effects of global economic recession which began in year 2007. It is worth of note that since 2010 to 2017, the economic growth rate in China has been declining except 2013. This implies that economic performance in China has not fully recovered to its former position before the global economic recession that ravaged the world economy around 2007 and 2008.

Figure 2: Market Size in China

Source: Authors' Computation (2019) from WDI, 2018

Figure 2 shows the market size of the Chinese economy in the last 27 years. It could be deduced from the above figure that between 1990 and 2017, the market size in this country has expanded significantly. This implies that the size of the economy is expanding with an impressive performance each year from 1991 till 2017.

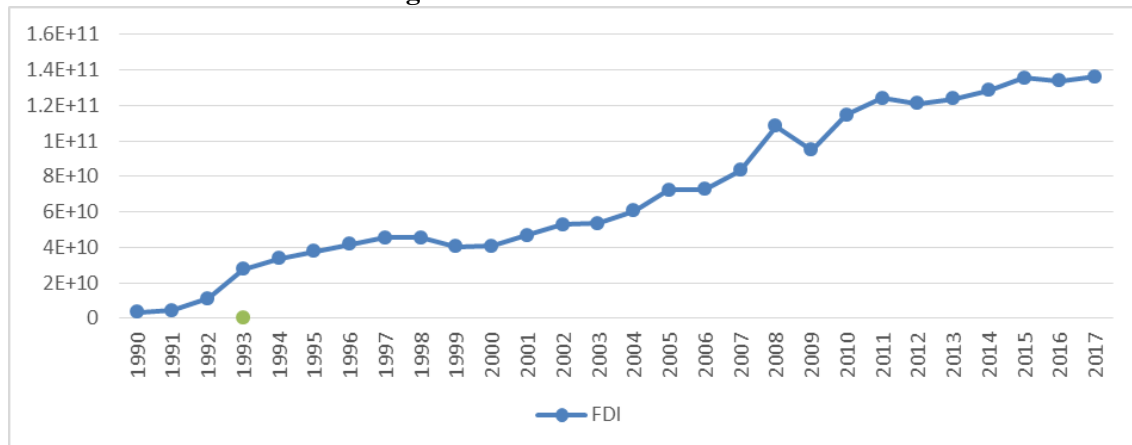
Figure 3: GDP Per Capita in China

Source: Authors' Computation (2019) from WDI, 2018

Figure 3 presents the panoramic view of the level of welfare in the country measured by GDP per capita. The Chinese GDP per capita has been fluctuating between 1990 and 2017. It started growing with an impressive performance in 1991 and 1992 and thereafter began to fall from 1993 throughout 1999. However, from 2010 there was an upward movement of the trend which continued until it got to the pinnacle in 2000. Consequently, 2008 marked another downward trend of this variable in the country with slight improvement in 2010 and 2011, apart from those years, this variable continued to fall before it improves a little bit in 2017.

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Figure 4: FDI Inflows in China

Source: Authors' Computation (2019) from UNCTAD, 2018

The trend of FDI inflows shown in Figure 4 indicates that the direct cross border investment in this country has been an impressive one on average basis because it shows an upward trend apart from few years of little fluctuation. In an explicit form, between 1990 and 2008, the trend was relatively stable in an upward manner before there was a sharp drop in 2009. However, in 2010 FDI inflows rose again and continued to increase steadily till 2017.

METHODOLOGY

The data for the empirical analysis in this work are extracted from secondary sources. In another words, FDI data were sourced from UNCTAD investment report published by the World Bank. Meanwhile, data on market size, growth rate of the economy, growth per capita were sourced from World Bank Development Indicator. E-Views software was employed for the running of the data.

3.1 Model Specification

FDI = F(MKTZ, GRT, GDP/CA) -----1

If model 1 is linearized to form model 2

$$\ln FDI_t = \alpha_i + \beta_0 \ln MKTZ_t + \beta_1 GRT_t + \beta_2 GDP/CA_t + \mu_i \text{-----2}$$

ARDL Model Specification

Various diagnostic tests such as unit root test and Bound Test performed on the variables of interest motivated the choice of ARDL and ECM in this paper. Due to different orders of integration of the variables i.e. I(1) and I(0), the paper utilizes autoregressive lag model to address its objective (Pesaran, Shin and Smith, 2001, Pesaran and Pesaran, 1997).

In a general form, ARDL model can be specified as follows:

$$\text{ARDL (1, 1) model: } Y_t = \mu + \alpha_1 Y_{t-1} + \beta_0 X_t + \beta_1 X_{t-1} + U_t \text{..... (3)}$$

Meanwhile, Y_t and X_t are stationary variables, and U_t is a white noise.

Therefore, in an explicit way the model to capture the analysis of this work could be stated thus:

$$\Delta \ln FDI_t = \beta_0 + \sum_{i=1}^p \beta_1 \Delta \ln LFDI_{t-1} + \sum_{i=0}^p \beta_2 \Delta \ln MKTZ_{t-1} + \sum_{i=0}^p \beta_3 \Delta GRT_{t-1} + \sum_{i=0}^p \beta_4 \Delta$$

$$\text{GDP/CA}_{t-1} + \text{ECM}_{t-1} + \theta_2 \text{LnFDI}_{t-1} + \theta_3 \text{LnMKTZ}_{t-1} + \theta_2 \text{GRT}_{t-1} + \theta_3 \text{GDP/CA}_{t-1} + \mu_t \quad (4)$$

Where

MKTZ is used to represent the market size of the economy and is proxied by real gross domestic product and is measured in US dollars.

FDI means foreign direct investment inflows which is measured in the millions US dollars in constant prices.

GDP/CA denotes gross domestic product per capita and is measured in percentage.

GRT captures the rate at which the economy is growing on annual basis and is measured in percentage.

μ_t represents stochastic error terms. p is the lag length and $t = 1990, \dots, 2107$.

3.2 Results and Discussion

Table 1: Descriptive Statistics of Annual Data Series (1990-2017)

Descriptive Statistics	LMKTZ	LFDI	GDP/CA	GRT RATE
Mean	30.57467	24.69577	8.721429	9.532143
Median	30.79321	24.76555	8.600000	9.350000
Maximum	31.99533	25.63827	13.60000	14.20000
Minimum	22.58216	21.97231	2.400000	3.900000
Std. Deviation	1.727149	0.953298	2.464918	2.480898
Skewness	3.644663	1.484496	0.008820	0.251021
Kurtosis	17.70082	4.909357	3.209016	2.863887
Jarque-Bera	314.1232	14.53732	0.051332	0.315667
Probability	0.000000	0.000697	0.974661	0.853992
Sum	856.0907	691.4814	244.2000	266.9000
Sum. Sq. Deviation	80.54216	24.53698	164.0471	166.1811
Observation	28	28	28	28

Source: Authors' Computation (2019)

An attempt to verify the normal distribution of the dataset for the econometric analysis, the study subjected the data to the computation of various descriptive statistic such as mean, median, minimum and maximum values, the skewness, kurtosis and Jaque-Bera statistics. Consequently, from the above table it could be pinpointed that the values of mean and mode of the data series are identical. Karmel and Polasek (1980) argued that when a distribution is perfectly symmetrical, the mean, mode and median must converge and in cases of near symmetry, the three measures are necessarily very close. The values of mode and mean fulfilled the above condition, therefore one could conclude that the distribution of the dataset is near a perfect symmetry. In addition, the values of Kurtosis for 3 of the variables are not too far from 3. This is also justified the normal distribution of the data set. Hence, the data could be used for further econometrics analysis.

Table 2: Unit Root Test

Variables	ADF Test			PP Test		
	Level	1 st Diff.	Remarks	Level	1 st Diff.	Remarks
LMKTZ	-2.981038**	-2.981038**	I (1)	-2.976263**		I(0)

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LFDI	-2.976263**		I(0)	-2.976263**		I(0)
GDP/CA	-2.976263**		I(0)	-2.976263**		I(0)
GRT	-2.976263**	-2.981038**	I(1)	-2.976263**		I(0)

Source; Authors` Computation (2019)

*** %5 level

The test for stationarity or unit root becomes imperative when it comes to time series analysis because of the danger of spurious results that could emanate from such analysis if the data possess a unit root. In view of the above, the augmented dickey fuller (ADF) and Phillips-Perron (PP) tests were employed to verify whether there is a presence of unit root in dataset. As reported in the estimated results in table 2, shows that the variables of interest are a mixture of (1) and (0). This implies that some are stationary after first differencing. Whereas others are stationary at a level.

Table 4: ARDL Bounds Test

Sample: 1991 2017

Included observations: 27

Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	60.13107	3

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

Source: Authors` Computation (2019)

Due to the combination of stationarity and non-stationarity data set, it is expedient to examine the existence or otherwise of the long run equilibrium relationships among these variables with aid of Bound Test. (Pesaran and Pesaran, 1997, Pesaran, Shin and Smith, 2001). Based on the estimated result presented in the above table the Null hypothesis of no long run relationships could not be accepted because the upper and lower Critical Value Bounds at all level of significance is less than the value of F-Statistic. Therefore, the variables of interest have a long run relationship in the model. This outcome necessitates the estimation of both short run relationship and long run relationship among these variables.

Table 5: Parsimonious Short Run and Long Run Regression Estimates
Dependent Variable: LFDI

Variables	Coefficient	t-statistics	P-value	Variable	Coefficient	t-statistics	P-value
LFDI(-1)	0.335*	5.7	0.0000	LFDI(-1)	0.363**	3.2	0.0047
D(LMKTZ(-1)	0.100*	6.3	0.0000	LMKTZ(-1)	3.52E	0.2	0.8456
D(GRT(-1)	0.056*	4.8	0.0001	GRT(-1)	0.174	1.0	0.3178
D(GDP/CA)	0.128***	1.3	0.1837	GDP/CA(-1)	0.107	0.6	0.5397
C	1.561	1.1	0.2837	ECM	-0.187**	2.6	0.0223

Source: Authors' Computation (2019) ***Significant at 10%, **Significant at 5%, *Significant at 1%,

Table 5 presents the ARDL results of the short run and long run relationship between the FDI and other macroeconomic variables that derive it the studied economy. From the estimated results it could be deduced that when FDI is the dependent variable, D(FDI(-1) is positive and significant. This implies that FDI inflow in the previous year increases the level of FDI inflows in the current year. Similarly, FDI inflows and market have a positive relationship in the both short run and long run, but the relationship is only significant in the short run. This finding is supported by the findings of Aderemi et al (2018:1) Kaliappan et al (2015), Agrawal et al (2011), Azam (2010) and Wei (2005) in similar studies in China, Indonesia, India and Pakistan and ASEAN countries respectively in spite of adoption of different methodologies. This implies that market size is a principal variable that derives FDI inflows in China. In another words, FDI inflow in china is more of market seeking. In the same vein, the relationship between FDI and growth rate of economy is positive and significant in the short run and not significant in the long run. This shows that FDI inflows in China is propelled significantly by the rate at which its economy is growing. In another words, foreign investors are attracted to this country because of the rate at which it has been growing its economy in the past few decades. However, there is negative relationship between FDI and GDP per capita but not significant in both short run and long run. GDP per capita is not a motivating factor behind FDI inflows in China.

Moreover, the error correction model (ECM) which shows the speed of adjustments back to equilibrium in the estimated model is negative and significant. The speed of adjustment for correcting disequilibrium from the previous year to equilibrium in current year is 18% as shown by the coefficient of ECM. In another words, this implies that an approximately 18% of disequilibria from the previous year's shock converge to the long-run equilibrium in the current year.

3.4: Diagnostic and Stability Tests

TABLE 4.6: Breusch-Godfrey Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.088771	Prob. F(1,19)	0.3098
Obs*R-squared	1.463345	Prob. Chi-Square(1)	0.2264

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	2.042632	Prob. F(6,20)	0.1070
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Obs*R-squared	10.25882	Prob. Chi-Square(6)	0.1142
Scaled explained SS	5.115784	Prob. Chi-Square(6)	0.5291

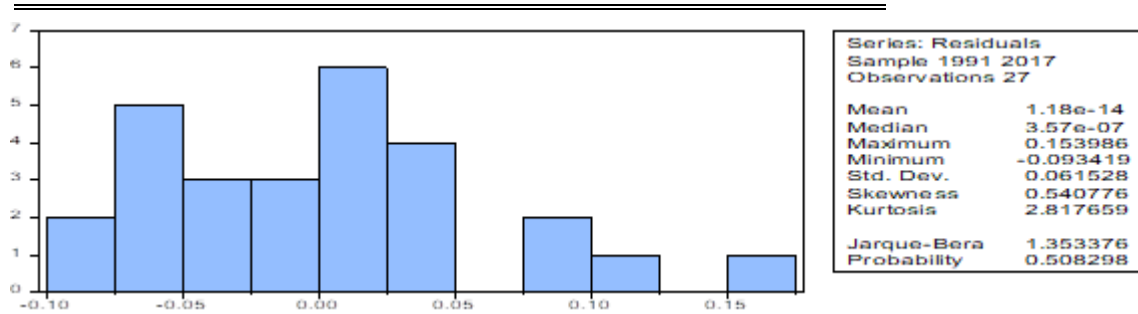
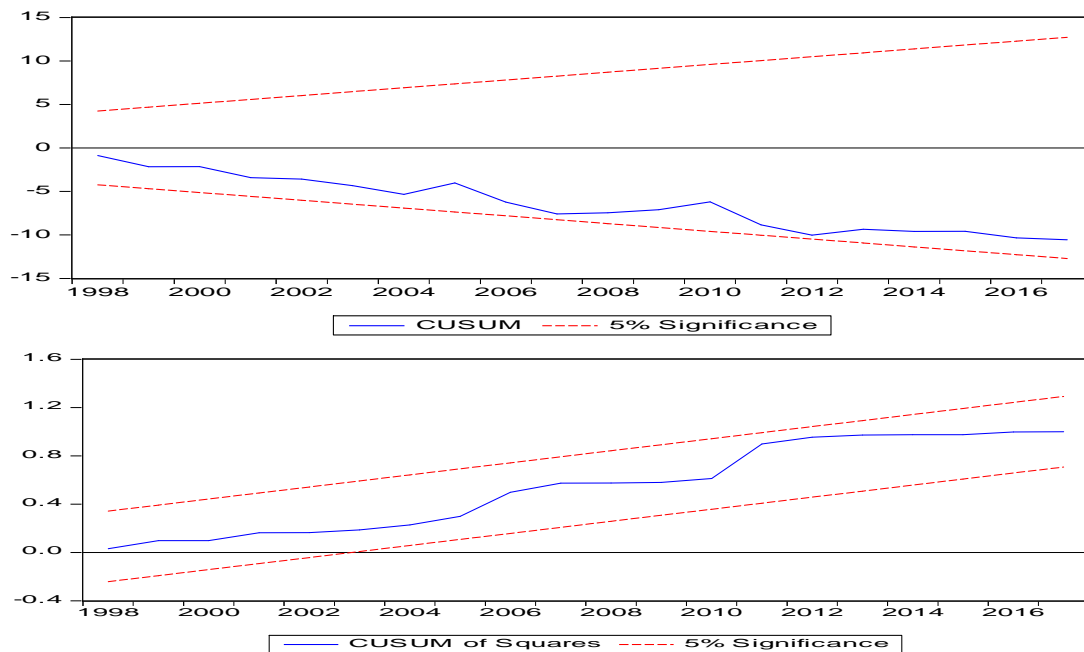


Figure 1. Stability Tests

CUSUM Stability Test



In order to establish the appropriateness of the short run (parsimonious) model, in this study further attempt was made to carry out diagnostic test (the Serial Correlation LM test) and stability tests (Cumulative Sum (CUSUM) on the residual of the short run model. From the results of the table 4.6, the F-statistics of the Serial Correlation LM test of the model was insignificant, this confirmed the absence of serial correlation in the residuals of the ECM regression estimate. Similarly, the results of the CUSUM and CUSUMQ stability tests in the above graph showed that the residuals of the error-correction model is within the critical bounds of five percent significant level. This connotes that the estimated parameters are stable over the period 1990-2017. Therefore, the model is considered to be reasonably specified as a result of the tests carried out above.

3.5 Conclusion and Recommendations

This study examined what derives FDI inflows in both short run and long run in Chinese economy over the period of 1990 to 2017. The major findings that originated from the work

could be submitted as follows. The result of error correction term confirmed that about 19% of the total disequilibrium in the previous year would be corrected in the current year. Therefore, it will take about five (5) years for the system to adjust back to its long run equilibrium path.

The principal drivers of FDI inflows in China are the large market size and impressive growth rate of the economy. However, GDP per capita could not drive FDI inflows in China.

Consequently, based on the findings that emerged in this work, it is mandatory this paper makes these recommends for both the policy makers and the future researchers in China that whenever sporadic inflows of FDI is the target of the policy makers in this country, the Chinese government should manipulate the market size and growth rate of its economy. In another words, the government should embark on policy measure that will expand the market size and growth rate of its economy exponentially.

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CHALLENGES AND PROSPECTS OF THE NIGERIAN POWER SECTOR (1999-2017)**Zekeri Momoh**

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ABSTRACT

The economic growth and living standard of any country is an indicative of the size of its electricity industry. However, the quantity of electricity supply in Nigeria has over the years unable to meet the demands of her population despite huge annual budgetary allocation to the power sector. This study seeks to explore the challenges facing the Nigerian power sector reforms in the fourth republic. Besides, the data for the study was obtained from various qualitative and quantitative sources while content analysis were used in it analysis. Also, the output oriented approach to the study of reforms was adopted. Furthermore, the findings show that the challenges of electricity supply in Nigeria ranges from inadequate gas supply to power stations, overloaded transformer, inadequate skill manpower, low technical development and low capital investment among others.

Keywords: Power sector, Electricity supply, Power station, Nigeria, economic development

INTRODUCTION

The development of Nigeria's power sector dates back to the colonial period. Though, the first attempt of improving electricity supply resulted to the insulation of a 2 by 30 Kilowatts generating plant at Ijora, Lagos State in 1896. By 1925 a 2MW hydro-electric station was constructed at the Kwa fall which provided the platform for the effective co-ordination of the entire independent generating plants in Nigeria. Besides, the year 1950 became significant in the development of Nigeria power sector as the Electricity Corporation of Nigeria (ECN) was established which began the utilization of the water resources of River Niger. Moreover, by 1958 the ECN conducted a survey and the outcome of the survey was for similar hydro-electric plant though of lower capacity should be constructed at Jebba downstream from the Kainji station which was later commissioned in 1986.

However, by 1962 the Niger Dams Authority was set up to build, operate and maintain dams in Nigeria. In same year, the first 132 KV line between Lagos and Ibadan was built; in order to transmit power supply from the Kainji dam. Also, there was the need to construct a 330 KV transmission line from Kainji dam to Lagos and Kaduna in order to increase the scope of electricity supply in the country. By 1968, the first phase of the Kainji hydro-electric station was built in present day Niger state and it began operation. Subsequently, other phases of the Kainji hydro-electric station were constructed and commissioned between 1968 and 1970 respectively. Since 1896, the Nigeria's electricity infrastructure has passed through various stages leading to the systemic growth of power generating installations all over the country in order to meet the increasing demand of the country's population.

Nevertheless, the Federal Military Government of Nigeria approved the merger of the Niger Dams Authority (NDA) and the National Electricity Power Authority (NEPA) in 1972 with the aim of "assisting the authority to develop and maintain an efficient, coordinated and economical system of electricity supply to all parts of the country" (Federal Ministry of Information and National Orientation, 2002:11) was in operation on till January 2000 when President Olusegun Obasanjo to set up the National Council on Privatization (NCP) which consisted of 23 member steering committee named the Electric Power Sector Reform Implementation Committee (EPIC) to prepare the Nigerian power sector for privatization by

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encouraging investors in the country's Emergency Power Programme (EPP) that will remedy the shortfall in the country's generating capacity by establishing Independent Power Plant (IPP) on Build Own and Operate (BOO) contract basis.

The above effort by the government to involve the private sector in the generation and distribution of electricity supply in the country is in line with global best practices. For instance, countries like Pakistan, India and Bangladesh as well as South Asian countries have adopted the Public Private Partnership approach in the development of their power sector (Pakistan and Gulf Economist, 2003). In contemporary times, the normal practice in the power system development globally is for developing countries to plan for an average of 250 per cent growth in the power sector every 10 years in order to boost electricity supply as well as meeting the increasing demand of its citizens (Federal Ministry of Information and National Orientation, 2002).

However, Nigerian power sector is performing below the level of its peer countries. Over half of the population estimated at 55% has no access to grid-connected electricity and those who are connected to the grid suffer extensive power outages. Nigeria lags far behind other developing nations in terms of grid based electricity consumption. Based on the country's GDP and global trends, electricity consumption should be four to five times higher than it is today. For example, Ghana's per capita consumption (361kWh) is 2.9 times higher than that of Nigeria, and South Africa's (3,926kWh) is 31 times higher (Ogunbiyi & Abiodun, 2015).

To address these challenges facing the Nigerian power sector, the Nigerian government under the leadership of Chief Olusagun Obasanjo embarked on the privatization of the Nigerian power sector with the Electric Power Sector Reform Map of 2005 and the launch of the Roadmap for Power Sector Reform in 2010. The former National Electric Power Authority (NEPA) was replaced by the Power Holding Company of Nigeria (PHCN), which was unbundled into separate generation and distribution companies and the Transmission Company of Nigeria (TCN). Moreover, from 2013, the generation and distribution companies were handed over to private owners with the Federal Government of Nigeria retaining a minority stake. The Transmission Company of Nigeria (TCN) is still 100% owned by the Federal Government of Nigeria but is currently under a management contract with Manitoba Hydro International (MHI).

On the whole, efforts have been made by past administrations to revamp the power sector in Nigeria in order to improve the rate of electricity supply that will meet the needs of the country this have so far yielded little or no result. Despite, huge resources that have been invested in the power sector by the government much is yet to be desired about the state of electricity supply in the country. It is against this background that this study seeks to explore the challenges facing electricity supply in Nigeria.

THEORETICAL FRAMEWORK

There are various approaches used by Scholars and Researchers to the study reforms in any society among them are system approach, Institutional building approach, Management (Process) approach, Behavioural approach and Output oriented approach etc. This study adopts the Output oriented approach to the understanding of reform to its investigation. The Output oriented approach focuses on human needs and the need to raise quality of life of the citizens in any society, which represent the central purpose for which the state exists.

Reforms are geared towards improving socio-economic wellbeing of the citizens and equally provide the needed opportunity for them to develop their potentials (Obasi, 1990, Dashe, and Wapmuk, 2005). The Output oriented approach is not elitist in nature rather it takes cognizance of the various individuals and group in a society compared to the system approach, Institutional

building approach, Management (Process) approach, and Behavioural approaches (Akor & Momoh 2017).

The Output oriented approach focus on output of reforms as it affects the welfare of the citizens. It does not assume that mere administrative reforms and increase in the quality and quantity of inputs will result in increase in outputs. Dashe, and Wapmuk, (2005:177) posits that experiences have shown that reliance on the former results in unsatisfactory outputs.

It is against this background that this study employs the Output oriented approach to reform in its investigation.

FEDERAL GOVERNMENT SUBVENTION TO THE NIGERIA POWER SECTOR (1958-1998)

Nigeria power sector have been receiving support since colonial era. However, despite the huge annual budgetary allocation to the Nigeria power sector, Nigerians have not been able to enjoy uninterrupted power supply let their counterpart in the western world. Table 1 below shows the annual budgetary allocations from 1958 to 1998.

Table1: Federal Government Subvention to the Nigeria Power Sector (1958-1998)

YEAR	CURRENCY (NAIRA)	CURRENCY (US \$)	ADDITIONAL CAPACITY (MW)	PEAK CAPACITY (MW)
1958	-----	-----	21.5	-----
1959	-----	-----	20.6	42.10
1960	-----	-----	0	42.10
1961	-----	-----	0	42.10
1962	-----	-----	0	42.10
1963	-----	-----	0	42.10
1964	-----	-----	0	42.10
1965	-----	-----	-----	42.10
1966	-----	-----	36.00	78.10
1967	-----	-----	-----	78.10
1968	-----	-----	320.0	398.10
1969	-----	-----	-----	398.10
1970	-----	-----	-----	398.10
1971	-----	-----	-----	398.10
1972	-----	-----	-----	398.10
1973	1,392,552.00	0	-----	398.10
1974	25,350,000.00	15,796,360.92	-----	398.10
1975	115,013,000.00	71,083,436.34	120.00	518.10
1976	160,000,000.00	100,496,199.99	335.60	853.70
1977	207,079,987.00	134,223,482.63	-----	853.70
1978	509,210,000.00	324,193,034.95	1,190.00	2,043.70
1979	540,000,000.00	326,173,621.01	-----	2,043.70
1980	370,000,000.00	203,341,393.71	-----	2,043.70
1981	222,481,000.00	136,726,278.27	300.00	2,343.70
1982	112,370,280.00	75,843,871.49	312.00	2,655.70
1983	11,530,000.00	8,356,706.68	-----	2,655.70
1984	167,571,370.00	128,436,705.76	-----	2,655.70
1985	110,189,433.00	98,931,076.46	440.00	3,095.70

1986	17,666,660.00	10,640,002.41	980.00	3,075.70
1987	282,303,446.90	69,142,875.63	440.00	4,515.70
1988	143,596,149.00	31,818,335.70	-----	4,515.70
1989	14,922,058.00	2,005,464.27	150.00	4,665.70
1990	15,000,000.00	1,853,591.02	1,050.00	5715.70
1991	26,625,513.00	2,678,407.47	-----	5715.70
1992	23,750,000.00	1,359,971.60	-----	5715.70
1993	152,203,000.00	6,921,873.51	-----	5715.70
1994	142,425,639.10	6,475,069.97	-----	5715.70
1995	1,426,276,710.00	18,603,698.24	-----	5715.70
1996	1,179,199,250.00	14,440,158.78	-----	5715.70
1997	1,000,000,000.00	12,191,880.70	-----	5715.70
1998	2,700,000,000.00	32,060,378.00	-----	5715.70

Source: (Federal Ministry of Information and National Orientation report 2002:30)

Table 1 above shows the flow of government subvention to the Nigeria power sector from 1958 to 2001. It shows the allocation of each year the naira as well as dollar equivalent. Table 1 also shows the various additional capacity of megawatts generated each year vis-a-vis the peak capacity for each year. The highest subvention was achieved in the year 1979 when NGN540,000,000.00 equivalents of 326,173,621.01 million US dollars was allocated to the power sector. While, the peak electricity generation capacity was 6,261.70 megawatts.

President Olusegun Obasanjo allocated the sum of twenty-five point five billion (NGN25.05 Billion) to the National Electricity Power Authority (NEPA) for the expansion of 19 transmission lines that was expected to generate at least 400 megawatts electricity which will be added to the existed 4,000 mega watts (Federal Ministry of Information and National Orientation, 2002). Besides, the World Bank as at June, 2009 approved the sum of \$200 million for the Nigeria Electricity and Gas Improvement Project aimed at strengthening the electricity transmission system and improving service delivery (DFID, 2009:15).

Also, the DFID, report 2009 asserts that the World Bank support for Nigeria Electricity and Gas Improvement Project was targeted at

“improving the availability and reliability of gas supply to increase power generation in existing public sector power plants; and to improve the power network’s capacity to transmit and distribute electricity to consumers” (DFID, 2009:15).

In the 2009 budget, the Federal Government of Nigeria allocated NGN99.6 billion NGN (about US\$0.7 billion equivalent) to the power sector. This was complemented by an additional 30.76 million NGN (about USD0.21 billion equivalent) to the power sector in the 2009 Supplementary Budget (which totals NGN102.3 billion), approved by the National Assembly in July 2009. As of August 2009, budget releases made (about 70% of the power sector budget appropriation) demonstrate the Federal Government of Nigeria’s commitment to accelerate reforms (African Development Bank Group, 2009).

As at February 2015, the Central Bank of Nigeria (CBN) made available a N213 billion (about US\$1.8 billion) Nigerian Electricity Market Stabilisation Facility (CBN-NEMSF) at a concessionary interest of 10% per annum on a reducing balance basis to the Nigerian power sector. According to the Central Bank of Nigeria (CBN) Regulation, the purpose of the CBN-NEMSF was to settle outstanding payment obligations due to Market Participants, Service Providers and gas suppliers that accrued during the Interim Rules Period (Interim Rules Debt or IRP Debt), as well as Legacy Gas Debt of the PHCN generation companies owed to gas

suppliers and the Nigerian Gas Company (NGC) which had been transferred to the Electric Liability management Company (NELMCO) (the Legacy Gas Debt) (Ajumogobia & Okeke, 2015).

On the whole, considering the enormous resources spent on the Nigerian power sector reforms since the late 50's Nigeria is hitherto far from achieving the desired electricity supply that will meet the needs of its growing population and in turn improve socio-economic activities in the country.

POWER SECTOR REFORMS IN NIGERIA

Over the years, several legal frameworks have been put in place to address the challenges bedeviling the Nigerian health sector such as Electricity Corporation of Nigeria Ordinance (1950); Niger Dam Authority Act 1962; National Electric Power Authority Act, Cap 256, Laws of the Federation of Nigeria (LFN) 1990 (as amended); Electricity Act, Cap 106, LFN(1990) (as amended); Constitution of the Federal Republic of Nigeria 1999, CAP C23, LFN (2004); Public Enterprises (Privatisation and Commercialisation) Act, CAP P38, LFN (2004); Environmental Impact Assessment Act (EIA), Cap E12 LFN (2004); Electric Power Sector Reform Act, No. 6 of 2005 (EPSR Act); National Environmental Standards and Regulations Enforcement Agency (Establishment) Act No 25 of 2007; Electric Power Sector Reform (Transfer of Assets, Employees, Liabilities, Rights and Obligations) Order No. 1 of 2006 (SC Order); National Domestic Gas Supply and Pricing Regulations; National Domestic Gas Supply and Pricing Policy and Roadmap for Power sector Reform of 2010 (Roadmap).

Moreover, the state of infrastructural decay prior to May 29, 1999 was captured in President Olusegun Obasanjo inauguration speech in which he said that:

“Our infrastructure-NEPA, NITEL, Roads, Railways, Education, Housing and other social services-were allowed to decay and collapse. Our country has been through one of its darkest periods. All these have brought the nation to a situation of chaos and near despair” (Federal Ministry of Information and National Orientation, 2002:145).

During the President Olusegun Obasanjo's administration, the Federal Ministry of Power is coordinating the activities of the various successor companies, the Niger Delta Power Holding Company Limited (NDPHCL) and the Bureau of Public Enterprise (BPE) in meeting various government milestones such as: (i) the rehabilitation program to meet short-term generation, transmission and distribution capacity targets; (ii) the NIPP program to meet medium-term generation, transmission and distribution capacity targets; and (iii) the implementation of the reform program, including the establishment of management boards for the successor companies and continuation of the privatisation program (African Development Bank Group, 2009).

The Bureau of Public Enterprise (BPE) was established to handle the privatisation of government-owned enterprises. The NDPHCL is managing the NIPP program. On the other hand, the Nigerian National Petroleum Corporation (NNPC) is responsible for developing a strategy for the sustainable exploitation of Nigeria's natural gas reserves. The Nigerian National Petroleum Corporation (NNPC) began work on a Gas Master Plan in 2005, with the aim of: (i) attracting private sector participation in the development of Nigeria's gas resources; and (ii) securing a quota of natural gas for the domestic market at cost-reflective prices (African Development Bank Group, 2009).

The Federal Government of Nigeria has adopted a four-pronged approach to resolving the supply constraint: (i) rehabilitate and reinforce existing assets; (ii) continue to implement the NIPP; (iii) extend electricity meter coverage; and, (iv) Implement the Gas Master Plan. The

objective of the NIPP was three-fold: (i) complete construction of three new power stations by end-2007; (ii) provide an additional 2,700MW of generation capacity (increased to 4,800MW); and, (iii) reinforce and expand the transmission and distribution infrastructure. In parallel, a program of extension of the coverage of pre-payment meters is underway, in order to improve revenue collection and the prospects of private participation (African Development Bank Group, 2009).

To redress the ugly state of electricity in Nigeria, the Federal Government of Nigeria enacted the Electric Power Sector Reform Act (EPSRA) in May 2005 and launched the National Integrated Power Projects (NIPP) initiative in 2006. The goal of the National Integrated Power Projects (NIPP) is to bridge the immediate supply/demand gap and reduce the bottlenecks in the power delivery system. The reforms were aimed to create an environment that would attract and retain much needed private sector finance and long-term participation (African Development Bank Group, 2009).

The Electric Power Sector Reform Act (EPSRA) enabled the restructuring and unbundling of the National Electric Power Authority (NEPA) and the establishment of the Power Holding Company of Nigeria (PHCN) in 2005. Eighteen successor companies were created under the PHCN: (i) six for power generation; (ii) one transmission company; and (iii) eleven distribution companies. The Electric Power Sector Reform Act (EPSRA) also enabled creation of the Nigerian Electricity Regulatory Commission (NERC), whose role includes: (i) promoting competition and private sector participation; and (ii) ensuring fair prices to customers, while allowing operators to finance their activities with reasonable returns for efficient operation (African Development Bank Group, 2009).

Under the Electric Power Sector Reform Act (EPSRA), the successor companies were privatized, with the exception of the Transmission Company of Nigeria (TCN). The TCN remained under public ownership but as a commercial entity subject to regulatory oversight by the NERC. The Federal Ministry of Power (FMP) issues general policy directions to the NERC, including on overall system planning and co-ordination, which the NERC took into consideration in discharging its functions, provided that such directions are not in conflict with the Electric Power Sector Reform Act (EPSRA) or the Constitution. The Nigerian Electricity Regulatory Commission (NERC) must produce quarterly reports to the President and the National Assembly on its activities.

The overall results of the ongoing National Independent Power Project (NIPP) have so far been limited. Three power stations were commissioned in 2007, but their impact has been modest due to a shortage of gas to fire them. The NIPP initiative was interrupted in 2008, as the National Assembly conducted a review of the power sector. The implementation of a Gas Master Plan began in 2008. The objectives, amongst others, include: (i) expanding existing gas processing infrastructure; (ii) reinforcing and extending the gas distribution network; and (iii) developing and phasing in cost reflective gas prices to ensure a sustainable supply of gas to power stations from October 2008. However, the overriding challenge is the ongoing Niger Delta unrest. Frequent vandalism of the gas supply infrastructure has been a major cause of power supply interruptions (African Development Bank Group, 2009).

Today, Nigeria has the following Electricity Distribution Companies (DISCOs) to includes Port-Harcourt Electricity Distribution Co. Plc; Abuja Electricity Distribution Co. Plc, Benin Electricity Distribution Co. Plc, Ibadan Electricity Distribution Co. Plc, Ikeja Electricity Distribution Co. Plc, Eko Electricity Distribution Co. Plc, Yola Electricity Distribution Co. Plc, Jos Electricity Distribution Co. Plc, Kano Electricity Distribution Co. Plc, Kaduna Electricity Distribution Co. Plc and Enugu Electricity Distribution Co. Plc. Also, Nigeria Generating

Companies (GENCOs) includes Geregu Power Plc, Afam Power Plc, Sapele Power Plc, Ughelli Power Plc, Shiroro Power Plc, and Kainji Power Plc.

CHALLENGES OF THE NIGERIA'S POWER SECTOR (1999-2017)

Available record have it that over half of Nigerian population estimated at 55% does not have access to grid-connected electricity, and those that do, suffer from intermittent power supply. According to the World Bank, an estimated 41% of Nigerian businesses generate their own power supply to augment the national grid supply. Besides, stable and constant electricity is vital to the economic and social welfare of the country.

Action Aid report (2015) asserts that despite Nigeria's vast energy potential, electrification remains a serious problem, especially in the rural areas. The Minister of Power, Works and Housing Babatunde Fashola remark shows that the Nigerian power sector is still faced with some challenges. He remarked that:

"The simplest way to put it is that we do not have enough power...power cannot be ready unless it is enough. Not only must it be enough, we must create excess capacity" (Alike, cited in This Day the Sunday September 10, 2017:22).

Mr. Peter Ewesor, Managing Director of Electricity Management Service Limited (EMSL) asserts that in spite of the high expectations and promises on account of the privatization of the Nigerian power sector, Nigerians have hitherto not feel the positive impact of the sector (This Day, The Sunday Newspaper May 3, 2015).

The major power gaps seriously impede the growth of the non-oil sector and, as a result, job creation and poverty reduction. About 45% of the population has access to electricity, with only about 30% of their demand for power being met. The power sector is plagued by recurrent outages to the extent that some 90% of industrial customers and a significant number of residential and other non-residential customers provide their own power at a huge cost to themselves and to the Nigerian economy. The total capacity of power self-generation units in Nigeria is estimated at about 2,500MW.

Electricity was found to be by far the most binding constraint to doing business in Nigeria for more than 80% of firms surveyed. Electricity-induced indirect losses of firms account

for 61%, followed by transportation (26%), bribery (11%), theft, robbery and crime (2%). As at December 2008, installed capacity stood at 8,000 MW, of which only around 50% is in operable condition. The gap in the power sector has far reaching implications for sustained economic growth and social wellbeing of Nigerians. About 45% of the population has access to electricity, with only about 30% of their demand for power being met. The Investment Climate Assessment of Nigeria, completed in 2008, with the joint support of the World Bank and the African Development Bank (AfDB) found that electricity is by far the most bindings constraint to doing business in Nigeria.

One of the challenges identified as responsible for the epileptic power supply in Nigeria is "overloaded transformers" which in most cases are "unmaintained". The Federal Ministry of Information and National Orientation report (2002) states that the distribution sub-sector of the power sector is be-deviled with "overloaded transformers, unmaintained, "cobweb-like" power lines, while irregular billing with erroneous or arbitrarily estimated bills and illegal connections were the order of the day in the marketing sub-sector. The problem has hitherto not been addressed as most parts of Nigeria experience epileptic power supply while in some places total darkness thereby making mockery of the huge investment of the government in the sector.

Also, shortage of gas supply to the newly built power plants has hindered the smooth functioning of most power plants in Nigeria. Abudulkadir, (2013) posit that one of the major reasons why the National Independent Power Plants (NIPP) such as Geregu, Sapele, Olorunsogo and Omotosho power plants which has a combined capacity of about 1700MW failed was that there is lack of sufficient gas supply to these newly built plants. He added that gas constraints have been responsible for an estimated 1500MW low capacity (Baobab Magazine, 2013:13).

Similarly, Okafor, (2017a) asserts that in April 2017 inadequate supply of gas to power stations across the country as well as water management dropped the electricity generation volume to 2,785 megawatts, leaving the entire country with 3,624.90 megawatts of electricity transmit across the eleven (11) distribution networks. Also, available records from both the Federal Ministry of Power, Works and Housing and National Electricity Regulatory Commission (NERC) shows that as at April 5, 2017 the average electricity generation estimated at 3,441 megawatts increased to 3,695 megawatts which later dropped to 3,624.90 megawatts. The shortage in gas supply and water management affected the level of electricity generation which stood at 2,695mega watts and 90 megawatts respectively. As at April 11, 2017 an average of 2,950 megawatts electricity capacity was transmitted and it further dropped by 254 megawatts while reported gas challenges were estimated at 2,627 megawatts and a high frequency challenge was recorded at 27 megawatts (This Day The Sunday Newspaper April 16, 2017).

In addition, the Nigerian Power Sector have witnessed considerable decline in recent years despite the establishment of 23 power plants by the Federal Government in some parts of the country. In the same vein, Dr. Sam Amadi, the Chairman National Electricity Regulatory Commission (NERC) asserts that Nigeria has loss over 2000 megawatts of electricity from the national grid due to shortage of gas to the respective power stations. He added that 18 out of the 23 power plants are unable to generate electricity due to shortage of gas supply to the thermal plants with one of the hydro stations reported to have failed (Ochayi, 2015).

The Federal Ministry of Information and National Orientation report (2002) also identifies low morale, indiscipline and corruption to have pervaded the entire power sector. This explains while Momoh, (2013) rightly observe that the Ndidi Elumelu's Power Sector Committee probe remains one scandal that cannot be forgotten in a hurry each time there is power outage. Also, technical losses of more than 40 percent have been recorded in the power sector as well as poor payment life style by some Nigerians has resulted to collections of less than 50 percent of power generated (Federal Ministry of Information and National Orientation report 2002:12).

Consequently, former Senate President David Mark identifies the existence of quacks in the power sector as another challenge facing the sector. He further attributed the importation of electricity product rather than manufacturing some of the electricity tools that would complement the imported ones to be responsible for the snail speed rate of development in the power sector which does not give credence to the privatization exercise of the government and expectations of Nigerians (This Day, The Sunday Newspaper, May 3, 2015).

Yet, the Nigerian Institute of Electricity and Electronic Engineers (NIEE) identifies absence of diversification of sources of power generation, inadequate skilled manpower and low technical development as critical challenges to the power sector (Ogunnaika, 2013 cited in Oluwashakin and Aleyomi, 2014:202). Besides, Oluwashakin and Aleyomi, (2014:202) identifies poor service delivery and collection to be responsible for the slow pace of electricity supply in Nigeria. This position is similar to the assertion of the Federal Ministry of Information and National Orientation report (2002) on the causes of power outage in the country. This further explains while despite the epileptic power supply some Nigerians found it difficult to pay their electricity bills due to poor service delivery.

DFID Report, (2016) states that:

“One area in which the impacts of low investment have been strongly felt is in the power sector. Despite having the continent’s largest economy, Nigeria also has the highest number of Africans (96 million) living without access to electricity. Increasing access is a key component of the poverty reduction strategy in Nigeria. It can improve the productivity and output of enterprises; create jobs and free people from the burden of self-generation (which is usually more expensive). Greater access can create a positive feedback loop by increasing incomes and allowing the poorest to invest in education and other productive resources that are central to sustainable development” (DFID, 2016:25).

Furthermore, low capital investment has been identified as a problem bedeviling the Nigerian power sector. Other challenges identified by the Department for International Development (DFID) include lack of regulatory framework for the power sector and fixing tariffs (DFID, 2009:14). However, it has been argued that there have been widespread opinions that the price of electricity tariff has been kept high for the poor. Yet, when the cost of buying and running private generator is placed side-by-side with the current electricity tariff, the cost of buying and running a private generator is far higher.

In addition, another challenge facing the Nigerian electricity distribution is metering challenge. Available record as at August, 2017 from the Nigerian Electricity Regulatory Commission (NERC) shows that from the 11 electricity distribution companies in the country eligible electricity users within the network of the 11 electricity distribution companies were estimated at 7,476,856, while meter users were 3,451,611. This shows that there is a gap of 4,025,611 and the collective metering percentage of 46.16 percent. Besides, the same records shows that four electricity distribution companies of Abuja, Ikeja, Eko and Benin were top on the list with meter deployment efforts with 52.17 percent, 55.95 percent, 60.73 percent, and 69.49 percent deployment respectively. Moreover, electricity distribution companies from Enugu, Kaduna, Kano and Yola were behind with the meager of 27.72 percent, 37.24 percent, 34.43 percent and 23.61 percent respectively. Electricity distribution companies from Ibadan, Jos, and Port Harcourt maintained average meter deployment percentages of 41.35 percent, 48.72 percent and 48.54 percent respectively (ThisDay The Sunday November 19, 2017 Page 21).

By and large, the politics of localization of power stations is also an issue that has affected the Nigerian power sector over the years especially over the siting of power stations in the country. Under normal circumstances it would be reasonable to locate any power station that will be powered by gas especially in the southern part of Nigeria due to availability of gas reserve in the area than in the northern part of Nigeria. But some Northern elites would want to have control over their source of power supply. This explains while some power stations that are expected to use gas that are located in the hinterland of the country are starve of gas supply, thereby affecting the capacity of these gas plant to function optimally.

RECOMMENDATIONS

From the challenges identified facing the Nigerian power sector, we recommend that:

Firstly, the Federal Ministry of Power, Works and Housing should intensify efforts in fast-tracking the completion of pipelines from gas points to the various power stations as well as provide adequate security that will ensure the protection of the gas pipelines from vandals.

Secondly, the Nigerian Electricity Regulatory Commission (NERC) should as a matter of urgency step up its role as a regulatory agency of the government to mediate in the frequent occurrence of conflicts emanating from the sector as a result of disregard of laid down rules and regulations.

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Thirdly, the Federal Ministry of Power, Works and Housing should intensify effort in ensuring that the desired skill manpower is employed in the Nigerian power sector so as to help address the issue of quackery. This can be achieved when the National Power Sector Apprenticeship Scheme (NAPSAS) whose mandate is to provide adequate skill training for technical staff in the area of distribution sub-station operation, cable jointers, linesmen, pole climbers and electrical fitters is strengthening through funding and monitoring.

Similarly, firms operating in the Nigerian power sector should be encouraged to replace obsolete equipment and improve the quality of service delivery. Aside, that there is the need for more private sector investment in the Nigerian power sector. For instance, over \$70 billion dollars of investment in the power grid is required, and the only realistic source for this amount of capital is the private sector (DFID, 2017).

In addition, improving gas supply to various power stations is also important in achieving sustainable power supply in Nigeria based on current trend. For instance, from 2010 to 2013, the gas industry received USD6 billion less than required from Nigerian National Petroleum Corporation (NNPC) to fully implement its joint-venture business plans on an annual basis. Addressing these funding challenges could increase gas production by 2.8 bscfd by 2020. Thus, gas has remained the primary feedstock for the Nigerian power industry and the failure to deliver will have a negative impact on all levels of electricity generation and distribution. Therefore, present and future power stations in Nigeria will not meet power demand unless gas supply improves tremendously.

Furthermore, the Nigerian Electricity Regulatory Commission (NERC), Nigerian Bulk Electricity Trading (NBET) and other relevant operators in the power sector should draft and implement strategic framework that will help address the financial problem facing the power sector. This will in addition, regulate the actions of stakeholders of the Nigerian power sector from gross disrespect for the various financial and governance mechanisms that guild the market operation especially as regards to tariff.

Finally, the federal government needs a strong political will to improve the generation capacity of power in Nigeria. Therefore, going by experts' projection, for Nigerian economy to grow at the rate of 10%, the nation's power output is expected to reach 30,000 megawatts by 2020 and by 2030 the expected projection should be 78,000 megawatts. Thus, the right time to put in place the right strategic frameworks and invest in the Nigerian power sector that will galvanize the desired growth in the Nigerian economy is now.

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HEALTH, AGRICULTURAL EXPENDITURE AND ECONOMIC GROWTH IN NIGERIA: ARDL AND ECM APPROACH

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ABSTRACT

This study examines the short run and long relationship between agricultural expenditure, health expenditure and economic growth in Nigeria. This study was motivated due to the lack of sufficient studies regarding this subject matter in the recent time. Consequently, Data were collected from CBN Statistical Bulletin from 1981 to 2016. Relevant pre-estimation tests such as unit root and Bound tests were carried out because all the study variables were integrated of order zero and one. Estimated results from ARDL and ECM models established the existence of a short run and long-run relationship between the variables of interest in Nigeria. While the error correction model reveals that about 19 percent of total disequilibrium due to external shock in the previous year is corrected in the current year. Therefore, it will take about five (5) years for the system to adjust back to its long run equilibrium path. Results further showed that there is a significant positive relationship between agricultural expenditure and economic growth in Nigeria. However, there is a significant negative relationship between health expenditure and economic growth in the long run. Finally, policy makers in Nigeria should allocate substantial budget towards health and agricultural sectors in Nigeria on sustainable basis.

Keywords: Health; Agriculture; Expenditure; Economic Growth; ARDL and ECM

JEL: C13; C22

INTRODUCTION

In the last few decades, the size of government expenditure and its aftermath effects on economic growth has been an issue of concern in Nigeria (Okoro 2013). Agricultural and health sectors are indispensable in sustaining economic growth in any country especially developing countries of Sub Saharan Africa in which agriculture constitute the larger bulk of their national output. In Nigeria, one of the prominent resources the country has is agriculture. Before the oil boom, this sector constituted the live wire of the Nigerian economy. As a matter of fact, not only agriculture contributed to about 71% of the nation's GDP but also over 70% of the country's working population depended on this sector for their survival, and the sector as well generated about 90% of the country's foreign earnings in those days. (CBN, 1970). However, the complete neglect of agricultural sector in Nigeria has been arrogated to the overdependence of the economy on foreign exchange from crude oil exports. (Odularu 2008). This has motivated the continuous declining in agricultural investment by the policy makers in the country.

Meanwhile, modern economists have identified investment in health care as a significant platform of improving human capital (Becker, 1993). It is instructive to note that health sector plays a paramount role in advancing economic development in any nation because of its multiplier effects on human capital development which is the critical variable that drives the

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economy. As it is commonly stated that health is wealth. Therefore, healthy human resources are the ultimate basis the nation's wealth because these resources are the active agents in the economy who accumulate capital, exploit natural resources, build social economic and political climate that propel national development.

In the recent times, several factors such as diseases and climate change have caused reduction in agricultural production in the developing economies in which Nigeria is inclusive. The aftermath effect of this has deepened poverty level in Nigeria because nothing less than 70% of Nigeria's teeming population depends on agriculture for their means of livelihood. Also, the cases of food insecurity has led to malnutrition which directly and indirectly affects human health in the country. In response to the important role in which food security and sound health play in propelling economic growth, the Nigerian government has over time made some effort to revamp these sectors through allocation of certain percentage of its annual expenditure to these sectors. However, despite the fact that the Nigerian government has been a committed defaulter of the Abuja declaration of 2001, yet some amount of money has been appropriated to health and agricultural sectors over the years, it is disturbing that these expenditures have not metamorphosed into economic growth in Nigeria. An attempt to empirically verify the above assertion has sparked off debate among the scholars in the recent time. See Fatuase et al (2016), Okoro, (2013), Imoughele and Ismaila (2013), Adelowokan (2012). Nasiru and Usman (2012) Abu and Abdullahi (2010), Ebiringa and Chalse-Anyagugu (2012), Usman et al (2011) and Adesoye et al (2010). Due to the inconclusiveness of the literature regarding this topic, re-examination of this subject matter cannot be undermined in the recent time. In view of the above, this study examines the short run and long run relationship between health expenditure, agricultural expenditure and economic growth in Nigeria.

Apart from the introductory aspect, the rest of this work is organized as follows; section two critically review the relevant literature and section three presents methodology, discussion of results, conclusion and policy recommendation.

2.0 EMPIRICAL REVIEW

Studies on nexus between public expenditures and economic growth have been approached with different methodologies by different scholars at different times. It is important to stress that this paper focuses on agricultural and health sectors of government expenditure vis-à-vis economic growth in Nigeria. Therefore, an effort has been made to painstakingly review the past studies in order to keep abreast with the positions of other scholars on the subject matter of this study.

Imoughele and Ismaila (2013) examined the factors that influenced public health expenditure in Nigeria between 1986 and 2010 with the application of error correction techniques. It was discovered from the study that the principal determinants of health expenditure in Nigeria is health expenditure share in gross domestic product, but gross domestic product per capital, unemployment rate, Population per Physician, consumer price index and political instability were identified as insignificant determinants of health expenditure in the country. In a related study, Oyeronke and Bolarinwa (2017) submitted that the promotion of agricultural production and rural development lies in agriculture financing and affordable credit access to the farmers in Nigeria. Adelowokan (2012) investigated the relationship between education, health expenditures and economic growth in Nigeria from 1970 to 2010 with the aid of a static regression model (the Engle-Granger two-step co-integration procedure). The author argued that public investment and public consumption (in education and health) have a direct relationship with economic growth, meanwhile, reverse is the case of private investment and public capital investment on economic growth in Nigeria. Similarly, Nasiru and Usman (2012) adopted an integrated sequential dynamic computable general equilibrium (CGE) model to analyze the

relationship between health expenditure and economic growth in Nigeria between 2004 and 2015. The findings from the paper concluded that government expenditure on health sector and economic growth have a significant relationship in the country. In the same vein, Dauda (2004) employed the neo-classical growth and OLS model to explore the link between healthcare spending and economic growth in Nigeria. The author submitted that a positive relationship exists between health care expenditure and economic growth in the country. While examining the impact of sectoral contribution to economic growth in Nigeria between 1977 and 2005, Abdulraheem (2010) used vector autoregression (VAR) model to discover that health sector contributed to the increment of economic growth significantly, but reverse was the case of agricultural sector. In another perspective, Adeniyi and Abiodun (2011) estimated the nexus between health expenditure and economic growth from 1985 to 2009 with the application of ordinary least square (OLS). It was discovered from the study that if expenditure on health is properly and appropriately channeled to both the recurrent and capital projects in health, there positive relationship between economic growth and health will be more widened. This submission was supported by Bakare and Sanmi (2011) who argued in the same line with the same methodology. Meanwhile, Das and Martin (2010) employed a co-integration technique to support their argument that the contribution of per capita income to health care expenditure is significant in Nigeria. In a related study, Philips (2005) submitted that over the past 50 years, there was a drastic improvement in life expectancy and decline in infant mortality in all parts of the world, except the African continent in the 1990s. Therefore, good health has the capacity to reinforce economic growth by increasing the productivity of people especially in countries that have little or no corruption. Loto (2011) analyzed sectoral government expenditure and economic growth in Nigeria between 1980 and 2008 with the aid of Johansen cointegration technique and error correction model. The finding from the paper indicated that in the short run expenditures on agriculture was negatively related to economic growth. Meanwhile, expenditure on health was insignificant but positively related to economic growth. In a related study, Ebiringa and Chalse-Anyaogu (2012) employed Error Correction Model to corroborate that expenditure on health sector has a positive effect on economic growth in Nigeria economic growth. However, agricultural expenditure has a negative on the economic growth in the country.

3.0 METHODOLOGY

Secondary data from 1990 to 2016 were utilized for the analysis of this work. Effort was made to extract data on expenditures on agriculture and health and real GDP from CBN statistical bulletin. Consequently, the paper employed E-Views software to run the data.

3.1 Model Specification

The model for this study can be specified in the general form as follows:

$$RGDP = F(\text{HEXP}, \text{AEXP}) \dots\dots\dots (I)$$

Model (I) could be written in an explicit form as follows.

$$\text{Ln RGDP}_t = \beta_1 + \beta_2 \text{LnHEXP}_t + \beta_3 \text{LnAEXP}_t + \mu_i \dots\dots\dots (II)$$

a. ARDL Model Specification

Various diagnostic tests such as unit root test and Bound Test performed on the variables of interest motivated the choice of ARDL and ECM for this paper. Due to different orders of integration of the variables i.e. I(1) and I(0), the paper utilizes autoregressive lag model to address its objective (Pesaran, Shin and Smith, 2001, Pesaran and Pesaran, 1997).

In a general form, ARDL model can be specified as follows:

ARDL (1, 1) model: $Y_t = \mu + \alpha_1 Y_{t-1} + \beta_0 X_t + \beta_1 X_{t-1} + U_t$
(III)

Meanwhile, Y_t and X_t are stationary variables, and U_t is a white noise.

Therefore, in an explicit way the model to capture the analysis of this work could be stated thus:

$$\Delta \text{LnRGDP}_t = \beta_0 + \sum_{i=1}^p \beta_1 \Delta \text{LnRGDP}_{t-i} + \sum_{i=0}^p \beta_2 \Delta \text{LnHEXP}_{t-i} + \sum_{i=0}^p \beta_3 \Delta \text{AEXP}_{t-i} + \text{ECM}_{t-1} + \theta_1 \text{LnRGDP}_{t-1} + \theta_2 \text{HEXP}_{t-1} + \theta_3 \text{LnAEXP}_{t-1} + \mu_i \text{-----}$$

(IV)

Where RGDP proxies economic growth.

HEXP denotes both capital and recurrent expenditures on health in Nigeria.

AEXP is used to proxy both capital and recurrent expenditures on agriculture in Nigeria.

μ_i is error term. $t=1990-2016$.

ECM_{t-1} measures the speed of adjustment between the short run and long run relationship in the model.

The term $\beta_1-\beta_3$ is short run parameters/ coefficients, meanwhile, $\theta_1-\theta_3$ is long run parameters.

It is expected that $\beta_1, \beta_2, \beta_3, \theta_1, \theta_2$ and $\theta_3 > 0$

3.3 Results and Discussion

Table 1: Descriptive Statistics of Annual Data Series (1981-2016)

Descriptive Statistics	RGDP	A/EXPENDITURE	H/EXPENDITURE
Mean	39.68286	21.36206	22.49150
Median	30.76924	22.17733	22.86259
Maximum	346.1660	24.90379	26.27514
Minimum	28.16628	16.11810	17.50439
Std. Deviation	52.54444	2.957498	2.901784
Skewness	0.745490	0.548238	-0.271612
Kurtosis	3.001700	1.893092	1.618439
Jarque-Bera	1641.146	3.641254	3.305704
Probability	0.000000	0.161924	0.191503
Sum	1428.583	769.0343	809.6941
Sum. Sq. Deviation	96632.15	306.1377	294.7123
Observation	36	36	36

Source: Author's Computation (2019)

In carrying out this study, an attempt has been made to examine various descriptive statistics of the data. The descriptive statistics of the data series provide information about the sample series such as the mean, median, minimum and maximum values; and the distribution of the sample measured by the skewness, kurtosis and Jarque-Bera statistics. However, it is observed that the values of mean and median are very close. This is reinforced by the proposition of Karmel and Polasek (1980) that when a distribution is perfectly symmetrical, the mean, mode and median must converge; and in cases of near symmetry, the three measures are necessarily very close.

Table 2: Unit Root Test

Variables	ADF Test			PP Test		
	Level	1 st Difference	Remarks	Level	1 st Difference	Remarks
H/Expenditure	-2.960411**	-2.951125**	I (1)	-2.948404**	-2.951125**	I (1)
A/Expenditure	-2.954021**	-2.951125**	I (1)	-2.948404**	-2.951125**	I (1)
RGDP	-2.948404**	-	I (0)	-2.948404**	-	I (0)

Source: Authors` Computation (2019)

** %5 level

The test for stationarity or unit root is done using the augmented dickey fuller (ADF) and Phillips-Perron (PP) tests. To verify whether there is a presence of unit root or the series are stationary we explore the time series characteristics of the variables (RGDP, Agriculture expenditure and Health expenditure). This test is very important due to the problem of spurious regression which could emanate from the analysis of time series data if such data is not stationary. However, the reported results in the table indicates that Agriculture expenditure and Health expenditure are stationary after first differencing. This implies that these variables possess unit roots. Meanwhile, RGDP is stationary at level. This shows the absence of a unit root in the variable.

Table 3: VAR Lag Order Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-173.4151	NA	3599.745	11.02594	11.16336	11.07149
1	-173.3831	0.055951*	3827.175*	11.08644*	11.26966*	11.14718*
2	-173.2204	0.274518	4037.906	11.13878	11.36780	11.21469
3	-173.1870	0.054270	4297.560	11.19919	11.47402	11.29029
4	-173.1703	0.026207	4582.274	11.26064	11.58127	11.36692

* indicates lag order selected by the criterion

Source: Authors` Computation (2019)

Unrestricted Vector Autoregression (VAR) by lag selection criteria was modeled to the time series data in order to determine the optimal number of lags for the model. As shown in Table 3, the lowest value for each estimator falls under lags one (1). Based on the result, SBIC criterion was chosen for the determination of optimum lag length of ARDL model in this study. ARDL (1,1,0) model was selected as a common consequence of the SBIC criterion

Table 4: ARDL Bounds Test

Sample: 1982 2016

Included observations: 35

Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	11.23807	2

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	3.17	4.14
5%	3.79	4.85
2.5%	4.41	5.52
1%	5.15	6.36

Source: Authors` Computation (2019)

The dataset for this study is a combination of stationarity and non-stationarity data. Therefore, it is expedient to examine the existence or otherwise of the long run equilibrium relationship among these variables using Bound Test. {Pesaran and Pesaran (1997), Pesaran, Shin and Smith (2001)}. The result presented in the above table shows that the Null hypothesis of no long run relationship could not be accepted because the upper and lower Critical Value Bounds at all level of significance is less than the value of F-Statistic. Hence, there is a presence of cointegrating relationship among the variables in the model. This outcome necessitates the estimation of both short run relationship and long run relationship among these variables.

Table 5: Parsimonious Short Run and Long Run Regression Estimates
Dependent Variable: LRGDP

Short Run	Coefficient	t-statistics	P-value	Variable	Coefficient	t-statistics	P-value
D(LRGDP(-1)	-0.044413	0.24	0.8067	LRGDP(-1)	0.009469	0.53	0.5935
D(LAEXP(-1)	-0.044413	0.24	0.5635	LAEXP(-1)	2.346772	2.00	0.0539
D(LHEXP(-1)	7.138535	0.58	0.5635	LHEXP(-1)	-2.600102	2.16	0.0384
C	53.57553	0.69	0.4899	C	47.76113	6.45	0.0000
ECM	-0.197780	15.7	0.0100				

Source: Authors` computation (2019)

The ARDL result of the short run and long run relationship between the variables is presented above. From the estimated result it could be deduced that when real GDP is the dependent variable, there is a negative relationship between agriculture expenditure and economic growth in Nigeria, though not significant at 5% level of significant. A unit change in agriculture expenditure causes the economic growth to reduce by 0.04%. The probable reason for negative relationship between GDP and expenditure on agriculture might be as a result of oil boom of 1970s which has shifted the attention of the Nigerians and the Nigerian government away from the agricultural sector. From that period till now little or no serious effort is geared towards revamping this sector by the policy makers in the country. However, health expenditure and economic growth have a non-significant relationship with economic growth in the short run. A unit change in health expenditure leads to 7.1% increment in economic growth in the country. In addition, The Error Correction Model (ECM) shows the speed of adjustments back to equilibrium in the estimated model. A significant relationship with a negative sign for the ECM implies the speed of adjustment from disequilibrium in last period to current period. The speed of adjustment for correcting disequilibrium from the previous year to equilibrium in current year is 19% as shown by the coefficient of ECM. In another words, this implies that an

approximately 19% of disequilibria from the previous year's shock converge to the long-run equilibrium in the current year.

Conversely, from the estimated results of the long run analysis, it could be deduced that there is a significant positive relationship between agriculture expenditure and economic growth in Nigeria. A unit change in agriculture expenditure causes an increment in economic growth by 2.3%. This finding is in agreement with the propositions of Fatuase et al (2016) and Olajide et al. (2013) However, there is a significant negative relationship between health expenditure and economic growth in the long run. A unit change in health expenditure leads to 2.6% reduction on economic growth. The reason for this result might be due to the lack of political will by government to invest in health sector, malfunctioning of healthcare facilities and improper investment in the health sector, and which has invariably led to deplorable health condition in Nigeria. Besides, the Nigerian government has been a perpetual defaulter of the recommendation of the Abuja declaration of 2001. This finding is validated by the similar conclusion of Fatuase et al (2016) and Menizibeya (2011). Meanwhile, this result is different from the submission of Nasiru and Usman (2012), Dauda (2011) Bakare and Sanmi (2011).

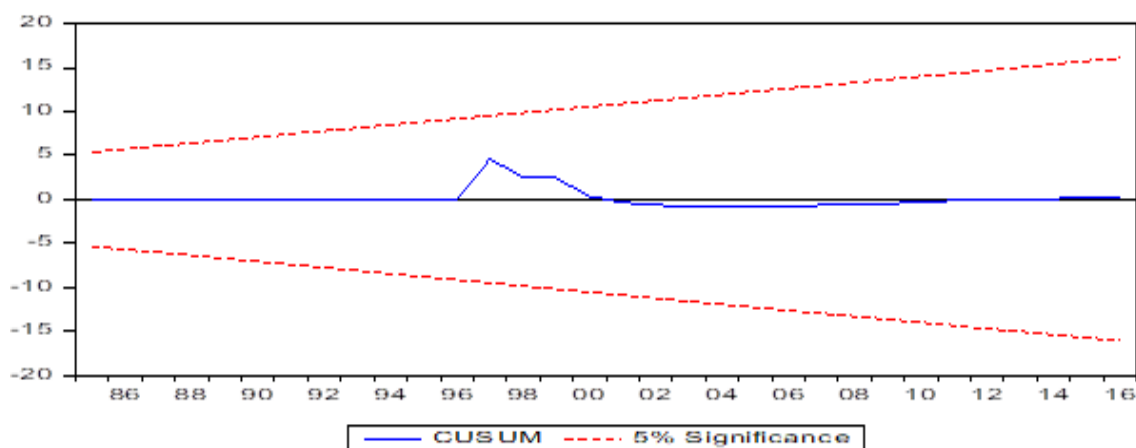
3.4: Diagnostic and Stability Tests

TABLE 4.6: Breusch-Godfrey Serial Correlation LM Test

F-statistic	0.229626	Prob. F(2,29)	0.7963
Obs*R-squared	0.545629	Prob. Chi-Square(2)	0.7612

Figure 1. Stability Tests

CUSUM Stability Test



In order to establish the appropriateness of the short run (parsimonious) model, in this study further attempt was made to carry out diagnostic test (the Serial Correlation LM test) and stability tests (Cumulative Sum (CUSUM)) on the residual of the short run model. From the results of the table 4.6, the F-statistics of the Serial Correlation LM test of the model was insignificant, this confirmed the absence of serial correlation in the residuals of the ECM regression estimate. Similarly, the results of cumulative sum (CUSUM) test in the above gap showed that the residuals of the error-correction model is within the critical bounds of five percent significant level. This connotes that the estimated parameters are stable over the period 1981-2016. Therefore, the model is considered to be reasonably specified as a result of the tests carried out above.

3.4 Conclusion and Recommendations

This study examined the both short run and long relationship between agricultural expenditure, health expenditure and economic growth in Nigeria over the period of 1981 to 2016. The result of error correction term indicated that about 19% of the total disequilibrium in the previous year would be corrected in the current year. There was an existence of an insignificant negative relationship between agriculture expenditure and economic growth in Nigeria in the short run. However, the relationship became positive and significant in the long run. Furthermore, there was an existence of a positive but insignificant relationship between health expenditure and economic growth in Nigeria, but the relationship became negative and significant in the long run. Based on these findings, this paper recommends the following for both the policy makers and the future researchers that the Nigerian government should allocate substantial budget towards health and agricultural sectors in Nigeria on sustainable basis. Also, the funds allocated to these sectors of the economy should be fully utilized for the intended purposes without embezzling by the public office holders in the country.

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CORPORATE GOVERNANCE AND FIRMS' PERFORMANCE: EVIDENCE FROM QUOTED FIRMS ON THE NIGERIAN STOCK EXCHANGE

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ABSTRACT

The aim of this paper is to examine the relationship between corporate governance and firms' performance of listed firm in the Nigerian stock exchange between 2012 and 2017. Consequently data were extracted from 40 companies out of 169 companies which are listed on the Nigerian Stock Exchange as at 2018 169. Dynamic ordinary least square was adopted to analyze the objective of study. The principal findings that originate from this study is that board independence, gender diversity and managerial ownership have positive relationship with firms' performance. These variables improved the return on asset and the return on equity of the selected firms. Therefore, it could be concluded from this study that corporate governance improves the performance of the listed firms on the Nigerian stock exchange. However, due to the findings that emerged in this study, this paper makes the following vital policy recommendations for the policy makers, corporate firms, institution regulators and future researchers. The board independence of the listed firms in the Nigerian stock exchange should be encouraged by increasing the percentage of independent directors in these firms. Similarly, there should be a balance in the inclusion of male and female with effective managerial ownership among the board of directors in the listed firms in the Nigerian stock exchange.

Keywords: Corporate Governance, Firms' Performance, Nigerian Stock Exchange

JEL Classification: M14

INTRODUCTION

Corporate governance has become an issue of public interest in the recent time. The critical need for proper and efficient practice in the administration of business entities in an economy has been identified as a reason behind the advocacy for good corporate governance in organizations.

Deficiencies in corporate governance have caused serious problems for companies in terms of scandals and fraud in both internationally and locally managed firms. For instance, scandals that ravaged the Volkswagen in 2015 which resulted into a \$4.6 billion loss in the company that very year. In the same vein, the case of the Gupta family of South Africa in 2017 which made KPMG to lay off 400 employees in South Africa cannot be overemphasized. In Nigeria, poor corporate governance practices have caused several issues in companies like Mega Bank Nigeria and Cadbury Nigeria Plc in the time past. It is important to stress that the perpetual failures in organization performance have orchestrated the compelling need for a deeper understanding of the issues diffusing the spillovers of corporate governance into the company's performance.

Generally, corporate governance is regarded as the systems of rules, practices and processes which guide the direction and control of a company (Cadbury, 1992). This involves reconciliation of the interest of a company's stakeholders which are composed of shareholders, management, customers, suppliers, financier, government and the community at large.

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Meanwhile, it is expected that a good corporate governance will generate more profits for the firms and thereby raise their valuation and increase sales growth. It also has the capacity to reduce the capital expenditure of the firms. However, despite the fact that supervisory agencies elucidate the aftermath effect of corporate governance on organization performance, the empirical arguments regarding this subject matter is limited in Nigeria (Dabor et al, 2015). It is worth of note that financial scandals which bewildered some reputable corporations like Panasonic, Volkswagen, Toshiba and KPMG, South Africa sparked off the studies about the impact of corporate governance on firms performance in the literature. Consequently, the bulk of these studies focused on firms operating in in developed economies which its policy their policy implications may yield different results in the Nigerian context. Similarly, majority of past studies in Nigeria are small sample oriented which could limit the generalizations of their results in the country. In view of the above, this study will move the frontiers of knowledge by examining the relationship between corporate governance and firms` performance while employing a larger sample which comprised all the firms listed at the Nigerian Stock Market. The uniqueness of this study also lies in the utilization of econometric technique in which several studies in Nigeria failed to adopt.

2.0 Literature Review

The section critically reviewed past studies on nexus between corporate governance and firm performance

2.1 Corporate Governance

Corporate governance could be conceptualized as the system which dictates the control and direction of companies (Siromi and Chandrapala, 2017:20). According to Pass (2004), corporate governance has to do with the responsibilities and duties of the board of directors of a firm in connection with the control of the firm and their relations vis-à-vis all the stakeholders of the firm. Raut (2011) denotes corporate governance as a set of customs, institutions, laws, policies and processes that influence the ways in which a firm is controlled, administered and directed. However, firms that are saddled with the responsibility of applying the corporate governance processes and principles have high tendency of improving the level of confidence and reassurance of shareholders with respect to their investments. This assertion is justified by the submission of Qureshi and Mahmood (2018) who submitted that the aim of developing principles that dictate the control and direction of a firm is to increase the awareness of the potential risk that may confront the company. The board of directors and executive management should possess adequate awareness to be able to predict accurately the potential risk that could affect the firm`s performance, and increase the ability of the company to minimize or mitigate such risk.

(1) In another perspective, (OECD, 2004) argues that corporate governance should as a matter of necessity revolve around the powers, duties and roles of the firm management, shareholders and the board of directors in one hand, and transparency and the place corporation occupies in the society at large. In another words, corporate governance stresses the control and the management of a firm with a view to maximizing the utility of both the firm and its stakeholders as well. It has been established that some parameters both internal and external of the firm are deployed in evaluating the extent of corporate governance among firms. The influences the firm possesses outside the company is measured by the external mechanisms. Whereas, the existing structures within the firm assess its internal governance mechanisms. Consequently, Thomson and Bereau (2009), submitted that some level of confidence is given to a firm that practices good corporate governance. For instance, an active group of non-executive directors ensures the confidence of an organization in the market. Therefore, this variable serves as one of the major criteria that influences foreign institutional investors when making

investment decisions. Corporate governance also influences the share price of the company because it has been argued to have a positive influence on it. This implies that a clear image of corporate governance of a firm can make the firm to obtain a better capital at a more reasonable cost. It could be concluded that good corporate governance is not pertinent to only the stakeholders of the firm but also the economy at large because it attracts both rational distribution and optimum management of a firm's human and material resources, and this invariably leads to a better corporate performance which would largely facilitate rise in the firm's share price, and raising a shareholder holdings' value in the long run.

(2) 2.2 Emergence of Corporate Governance in Nigeria

(3) In Nigeria, Corporate governance could be traced to the era of the British colonial masters before independence from the British in 1960. Before the country got her independence, an Anglo-Saxon based system of corporate law and regulation was imposed on the country by the British colonial government (Adigbite, 2011). Consequently, the Nigerian government introduced the 1968 companies Act after independence to replace the existing company's ordinance of 1922. It is worth of note that the 1968 companies Act was fashioned after the United Kingdom companies Act of 1948. This implies that all the reforms in law and legal system offshoots of the Anglo-Saxon model. The implication is that Nigeria's legal operating framework for corporations are yet to factor in the nation's business environment. (Adegbite, 2011). Little wonder, despite the availability of these laws in the country, there are still catalogues of corporation failures in both financial and non-financial sectors of the economy. Evidence abound in Nigeria that banking industry and manufacturing firms are collapsing on daily basis rewarding their investors, shareholders, suppliers, depositors, employees and other stakeholders with a series of losses. This has metamorphosed into continuous loss of aggregate output and rising level of unemployment among the teeming population of the country. It is not a gainsay to report that the unprecedented corporate scandals and failures that characterized majority of Nigerian firms in the late 1990s and the early 2000s were the products of dishonesty in management decisions and outright cover-ups of nefarious activities of people at the companies helm of affairs. These activities led to the crippling of many companies and the resources of millions of innocent stakeholders.

2.3 Board Composition and Financial Performance

The relationship between the board composition and financial decision of firms cannot be undermined in any corporate organization. Firm's performance is usually a reflection of the quality or otherwise of its directors and board composition. In corroborating the above assertion, Nicholson and Kiel (2004) submitted that outstanding and positive performance of a firm is linked with an effective management team and a board of the firm. Meanwhile, poor board and inefficient management effectiveness lead to poor corporate success. Because the responsibilities of the board of directors range from overseeing the firm's operations to the examination of the performance of top management with a view to protecting shareholders' interests. However, an attempt was made in the literature to enunciate the service role of the board of directors vis-à-vis resource dependence perspective. In view of the above, Mintzberg (1983) beam light on at least four different service roles of the board of directors as follows; chief adviser and counsellor to the organization, co-opting external influencers, enhancing corporate reputation and generating funds and establishing contacts for the firm. It is instructive to stress that the effectiveness of the service roles and supports a firm gets from its board is largely a function of the cumulative configuration of human capital of the board such as board demography characteristics like professional diversity, gender diversity etc. of the board members. The configuration of a board of directors with different backgrounds has the capacity to be more effective in terms of accessibility to critical technical skills, crucial expertise and

wealth of experience to catalyze relevant advice and counsel that will serve as an impetus for the achievement of the founding goals of the firm.

Another strategic role of the board is development of corporate strategy and creation of corporate vision that propel strategic changes in an organization. However, there are some other parameters like conflict resolution, debate norms and cohesiveness that can be used to determine the effectiveness or otherwise of board of directors in producing effective outcomes in cooperative decision-making between executive and non-executive directors. This implies that the board of directors must be good team players with some level of cohesiveness. Objective debates and some accompanying conflict in the course of the debates cannot be totally eroded among the board as a decision-making group of the organization. Therefore, the intensity of the debates is a direct function of cycle of group and interpersonal network that exists between executive and non-executive directors. The terms non-executive directors are synonymous to independent directors who are outside of the firm. They are regarded as outsider directors because their relationships with the firm is neither business nor personal (Ogbechie and Koufopoulos, 2010). In another words, this set of directors does not have a business relationship with the company for the past three years or more. The more reason for the inclusion of independent directors is usually linked with the possession of appropriate skills, caliber, wealth of experience, goodwill and personal qualities of some set of people in the society that might help in providing the board of directors with quality insights or critical ideas in some related sectors that could contribute to the improvement of the overall firm's financial performance. Succinctly put, independent directors bring a quite degree of objectivity to the board's deliberations because they are independent of the management of the firm and any of its interested parties. This plays an indispensable role in checkmating and monitoring executive management of the firm. Therefore, non or low representation of outside directors in boards could result into the lack of objective decision making and failure to monitor activities of the firm's management objectively.

Furthermore, Aduda and Musyoka (2011) assessed the nexus between executive compensation and firm performance in bank industry in Kenya. It was discovered in the study that an inverse relationship exists between executive compensation and the size of bank. The reason for this result was arrogated to the fact that the influence of principal owners of the bank diminish as the size of the bank grows in the country. In another related study by Dehaene, De-Vuyst and Ooghe (2001), it was discovered that the percentage of independent directors is directly related to the financial performance of firms in Belgium. Also, the correlation between number of external directors and return on equity of the firm was positive and significant. This study provided an empirical evidence to corroborate the assertion that independent directors bring more benefits to the firm because of their independence from the firm's management. In contrast, Priya and Nimalathasan (2013) argued that independent directors reduced firm performance, and this negative effect was more pronounced during the recent financial crisis.

2.4 Gender Diversity and Financial Performance

Over time, there have different speculations that women are more endowed with some innate qualities and characteristics with make them to more specialized in different activities that can guarantee good governance. While juxtaposing the above proposition, Azmi and Barrett (2013) opined that women are risk averse, meticulous, good decision makers and possess some special skills in finance and accounting. This argument has sparked off debate in the literature that female executives and directors could have potentials that drive better financial performance of a firm. Consequently, Campbell and Mingues-Vera (2008) and Adams and Ferreira (2009) in different studies concluded that the presence of female directors could exert a positive impact on both performance of firms and their market value. Similarly, Krishnan and Park (2005) reported

a positive correlation between the presence of women in management teams and financial performance while examining the linkage between female directors and return on total assets of 679 companies from the Fortune 1,000 database. But, Rose (2007) discovered no significant relationship between firm performance and female composition of board with Danish. Furthermore, Carter, Simkins and Simpson (2003) asserted that there was a significant and positive association examined the association between Tobin's Q and the inclusiveness of women on the boards of the Fortune 1,000 companies. In summary, it could be pinpointed that the results from various studies indicate that the inclusiveness of women on the boards or women participation in management teams might facilitate the team performance in such a way of bringing in different insights which might eventually metamorphosed into higher business value and financial performance of organizations.

3.0 METHODOLOGY

This study makes use of secondary data from 2012 to 2017. Data of various variables used for the analysis of this work were extracted from the annual financial reports of companies listed in the Nigeria stock and E-Views software was employed for the running of the data. It is important to state that the target population of this work is 169 companies which are listed on the Nigerian Stock Exchange as at 2018. However a total of 40 listed firms operating in high profile industries in the Nigerian Stock Exchange were purposively selected for this study. This implies that about 23.7% of the total population was adopted for the analysis. The selected sample size is large enough to make empirical generalization. This is justified by the proposition of Uwuigbe (2014), where a minimum of 5% of a defined population is considered as an appropriate sample size in making generalization. The purposive sampling technique in the study was motivated by size of companies, based on their sectors, and the availability of the annual reports of the companies. The following are the list of the selected firms for the study; Abbey Mortgage Bank, Access Bank, AG Leventis, AXA Mansard, Berger Paint, C and I Leasing, Cap Plc, Caverton, Champion Breweries, Consolidated Hallmark Insurance, Consolidated Reinsurance Plc, Dangote Cement, Diamond Bank, Ecobank, FCMB, Fidelity Bank Plc, First Bank, Forte Oil, GTBank, Guinness, Honeywell, International Breweries Plc, Jaiz Bank Plc, Julius berger, Lafarge Africa Plc, Nascon, Nestle, Nigerian Brew. Plc, Oando Plc, Portland Paint & Products Nig., PZ, Royal Exchange Plc, StanbicIBTC Bank Plc, Sterling Bank Plc, Transcorp, UBA, Unilever Nigeria Plc, Union Bank Plc, Unity Kapital Assurance Plc and WAPIC Insurance Plc.

3.1 Model Specification

$$Y_t = F(BOC_t, BIN_t, MAO_t, GED_t) \dots\dots\dots (1)$$

Where:

Y_{it} represents firm performance variables which are: return on capital employed and return on assets for firms at time t. Meanwhile, model 1 could be explicitly transformed to model 2 and 3 respectively.

$$ROE = \beta_0 + \beta_1 BOC_t + \beta_2 BIN_t + \beta_7 MAO_t + \beta_3 GED_t + e_t \dots\dots\dots (2)$$

$$ROA_{it} = \beta_0 + \beta_1 BOC_t + \beta_2 BIN_t + \beta_7 MAO_t + \beta_3 GED_t + e_t \dots\dots\dots (3)$$

Where:

ROE and ROA represents firm performance variables which are: Return on assets and Return on equity for the firms at time t. meanwhile, BOC and BIN, represents the board composition and board independence respectively. MAO represents managerial ownership and GED represents

gender diversity. However, e_t , the error term which accounts for other possible factors that could influence ROEt and ROA_t that are not captured in the model.

The a priori expectation is such that β_1 , β_2 and $\beta_3 > 0$.

3.2 Results and Discussion

Table 1: Descriptive Statistics of Annual Data Series

Descriptive Statistics	GED	ROA	ROE	BOC	BIN	MAO
Mean	0.137897	0.011726	0.023315	0.666667	1.72E+08	3.00E+08
Median	0.133929	0.014119	0.028247	0.700000	2.370071	1.594664
Maximum	0.166667	0.021300	0.042274	0.800000	6.00E+09	4.56E+09
Minimum	0.125000	0.034838	0.070387	0.400000	0.000000	825.2900
Std. Deviation	0.015175	0.016739	0.033475	0.149383	8.76E+08	6.85E+08
Skewness	0.845754	0.837637	0.788116	0.626099	6.053147	2.986945
Kurtosis	2.438229	3.160302	3.136309	2.040000	3.926540	1.79750
Jargue-Bera	31.76785	28.32241	25.03089	24.89600	13664.26	1316.787
Probability	0.000000	0.000001	0.000004	0.000004	0.000000	0.000000
Sum	33.09524	2.814292	5.595683	160.0000	4.12E+10	7.20E+10
Sum. Sq. Deviation	0.055036	0.066969	0.267816	5.333333	1.83E+20	1.12E+20
Observation	240	240	240	240	240	240

Source: Authors` Computation (2019)

Table 1 presents descriptive statistics of the data used to capture corporate governance and firm performance. This is very crucial because it provides a useful information about the distribution of the data series. It could be observed from the table above that the values of mean and median of the variables return on asset, return equity, gender diversity, board independence, managerial ownership and board composition are almost identical. This implies that the distribution of the data series is nearly symmetrical. A distribution of data series is perfectly symmetrical when the values of mean, mode and median of such data are (Karmel and Polasek, 1980). Also, the normal distribution of the data series could be confirmed from the value of Kurtosis which is not significantly different from 3.

Table 2: Correlation between Corporate Governance and Capital Structure in Nigeria

Variables	BIN	MAO	GED	BOC
BIN	1.000	0.055	0.025	0.125
MAO	0.055	1.000	-0.054	0.183
GED	0.025	-0.054	1.000	-0.141
BOC	0.125	0.183	-0.141	1.000

Source: Author`s Computation (2019)

Board composition has a weak positive correlation with board independence and managerial ownership, but a weak negative correlation with gender diversity. Whereas, the correlation between gender diversity and board in independence is positively weak, but has a weak negative correlation with managerial ownership. In the same vein, a weak positive correlation exists between managerial ownership and board independence. Consequently, the presence of weak correlation among the regressors is good because it has the capacity to eliminate the problem of potential multicollinearity in the model estimation.

Table 3: Impact of Corporate Governance on Return on Asset**Dependent Variable: ROA****Method: Dynamic Ordinary Least Square (DOLS)**

Variable	Coefficient	t-statistics	P-value
BOC	-0.018105	0.72	0.4714
GED	0.215602**	2.03	0.0435
BIN	0.009844	0.57	0.5691
MAO	0.032721**	2.63	0.0091
C	0.027817***	1.06	0.2877
R-Squared	72.1		
Adjusted R-Squared	69.3		

Source: Author's Computation (2019) ***Significant at 10%, **Significant at 5%,

The estimated results of the regression analysis were shown in table 3. All the explanatory variables possessed expected sign except board composition. However, the explanatory variables in the model jointly explained about 72% of the systematic variations in the dependent variable, return on asset leaving 28% unexplained as result of random chance. This connotes that this model is comparatively good for the analysis. Meanwhile, when the loss in the degree of freedom was adjusted, the explanatory power reduces to 69.3%.

Furthermore, the relationship between board composition and return on asset is negative though the relationship is not significant at 10% level of significance. This implies that the size of board as a variable has not led to the improvement of performance, in term of return on asset of listed firms in the Nigerian stock exchange. However, board independence, gender diversity and managerial ownership have positive relationship with return on asset of the selected firms. It is important to emphasize here that the impact of managerial ownership and gender diversity is significant at 5% level of significant. This implies that managerial ownership and the diversity of gender among the board of directors are significant factors that promote the performance of the listed firms in the Nigerian stock exchange. Though, the proportion of independent directors also facilitates a positive performance of the listed firms in Nigeria, but the influence is not significant in the country.

Table 4: Impact of Corporate Governance on Return on Equity**Dependent Variable: ROE****Method: Dynamic Ordinary Least Square (DOLS)**

Variable	Coefficient	t-statistics	P-value
BOC	-0.018697	0.25	0.7994
GED	0.627398**	2.01	0.0448
BIN	0.007742	0.57	0.5691
MAO	0.012884**	3.72	0.0002
C	0.037450	0.49	0.6248
R-Squared	74.2		
Adjusted R-Squared	64.5		

Source: Author's Computation (2019) ***Significant at 10%, **Significant at 5%,

The estimated results of the regression analysis showing the nexus between corporate governance and return on equity were shown in table 4. All the explanatory variables possessed

expected sign except board composition. However, the explanatory variables in the model jointly explained about 74% of the systematic variations in the dependent variable, return on asset leaving 26% unexplained as result of random chance. This connotes that this model is comparatively good for the analysis. Meanwhile, when the loss in the degree of freedom was adjusted, the explanatory power reduces to 65%.

In addition, the relationship between board composition and return on equity is negative though the relationship is not significant at 10% level of significance. This implies that the size of board as a variable has not led to the improvement of performance, in term of return on equity of listed firms in the Nigerian stock exchange. However, board independence, gender diversity and managerial ownership have positive relationship with return on asset of the selected firms. It is important to emphasize here that the impact of managerial ownership and gender diversity is significant at 5% level of significant. This implies that managerial ownership and the diversity of gender among the board of directors are significant factors that promote the performance of the listed firms in the Nigerian stock exchange. Though, the proportion of independent directors also facilitates a positive performance of the listed firms in Nigeria, but the influence is not significant

In summary, the impact of corporate governance on the return on asset and the return on equity of the listed firms in the Nigerian stock exchange is almost the same. Therefore, these variables could be used to measure the performance of the firms. It instructive to state that the findings in this work regarding board independence is in line with Dehaene, De-Vuyst and Ooghe (2001) who opined that the percentage of independent directors has a positive impact on the financial performance of firms in Belgium. But contradict, the submission of Priya and Nimalathan (2013) in a related study in Sri Lanka. Similarly, the results from the impact of board composition and gender diversity are justified by Nicholson and Kiel (2004) who submitted that outstanding and positive performance of a firm is linked with an effective management team and a board of the firm and Azmi and Barrett (2013) argued that women are risk averse, meticulous, good decision makers and possess some special skills in finance and accounting and female executives and directors could have potentials that drive better financial performance of a firm.

3.3 Conclusion and Recommendation

This paper has empirically examined the relationship between corporate governance and firms' performance of 40 listed firm in the Nigerian stock exchange between 2012 and 2017. The results. However, board independence, gender diversity and managerial ownership have positive relationship with firms' performance. These variables improved the return on asset and the return on equity of the selected firms. Therefore, it could be concluded from this study that corporate governance improves the performance of the listed firms on the Nigerian stock exchange.

Consequently, due to the findings that emerged in this study, this paper makes the following vital policy recommendations for the policy makers, corporate firms, institution regulators and future researchers. The board independence of the listed firms in the Nigerian stock exchange should be encouraged by increasing the percentage of independent directors in these firms. Similarly, in the composition of the board of directors, gender diversity and managerial ownership should be factored in. There should be a balance in the inclusion of male and female with effective managerial ownership among the board of directors in the listed firms in the Nigerian stock exchange.

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AN ASSESSMENT OF GOVERNMENT INTERVENTIONS IN ELECTRICITY SUPPLY IN NIGERIA: CHALLENGES AND PROSPECTS (1999-2017)

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ABSTRACT

The economic growth and living standard of any country is an indicative of the size of its electricity industry. However, the output of electricity supply in Nigeria has over the years unable to meet the demands of her population despite huge annual budgetary allocation to the power sector. This study seeks to assess the role of government interventions in electricity supply in Nigeria and identify the various challenges bedeviling electricity supply in Nigeria. Besides, the data for the study was obtained from various qualitative and quantitative sources while content analysis were used in it analysis. Also, the output oriented approach to the study of reforms was adopted. This study revealed that significant resources have been allocated over the years in a bid to improve electricity supply in Nigeria. Furthermore, the findings identify various challenges bedeviling electricity supply in Nigeria ranges from inadequate gas supply to power stations, overloaded transformer, inadequate skill manpower, low technical development and low capital investment among others.

Keywords: Power sector, Electricity supply, Power station, Nigeria, economic development

INTRODUCTION

Electricity generation and distribution in Nigeria dates back to the colonial period. Though, the first attempt of improving electricity supply resulted to the insulation of a 2 by 30 Kilowatts generating plant at Ijora, Lagos State in 1896. By 1925 a 2MW hydro-electric station was constructed at the Kwa fall which provided the platform for the effective co-ordination of the entire independent generating plants in Nigeria. Besides, the year 1950 became significant in the generation and distribution of electricity in Nigeria by the Electricity Corporation of Nigeria (ECN) which was primarily established to utilize the available water resources of River Niger. Moreover, by 1958 the ECN conducted a survey and the outcome of the survey was for similar hydro-electric plant though of lower capacity should be constructed at Jebba downstream from the Kainji station which was later commissioned in 1986.

However, in 1962 the Federal Government established the Niger Dams Authority operate and maintain dams in Nigeria. Similarly, in 1962, the Federal Government built the first 132 KV line along Lagos and Ibadan area; in order to transmit power supply from the Kainji dam. Also, the Federal Government constructed a 330 KV transmission line from Kainji dam to Lagos and Kaduna in order to increase the scope of electricity supply in the country. By 1968, the first phase of the Kainji hydro-electric station was built in present day Niger state and it began operation. Subsequently, other phases of the Kainji hydro-electric station were constructed and commissioned between 1968 and 1970 respectively. Since 1896, the Nigeria's electricity infrastructure has passed through various stages leading to the systemic growth of power generating installations all over the country to address the increasing demand of electricity by Nigerians.

Nevertheless, the Federal Military Government of Nigeria merged the and the National Electricity Power Authority (NEPA) and Niger Dams Authority (NDA) in 1972 with the aim of "assisting the authority to develop and maintain an efficient, coordinated and economical system of electricity supply to all parts of the country" (Federal Ministry of Information and

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National Orientation, 2002:11). This merger was in operation on till January 2000 when President Olusegun Obasanjo to set up the National Council on Privatization (NCP) which consisted of 23 member steering committee called the Electric Power Sector Reform Implementation Committee (EPIC) whose primary purpose was to prepare the Nigerian power sector for privatization by encouraging investors in the country's Emergency Power Programme (EPP) that will remedy the shortfall in the country's generating capacity by establishing Independent Power Plant (IPP) on Build Own and Operate (BOO) contract basis.

The above effort by the Federal government to engage the private sector in the generation and distribution of electricity supply in Nigeria was in line with global best practices. For instance, countries like Pakistan, India and Bangladesh as well as South Asian countries have adopted the Public Private Partnership approach in the development of their power sector (Pakistan and Gulf Economist, 2003). In contemporary times, the normal practice in the power system development globally is for developing countries to plan for an average of 250 per cent growth in the power sector every 10 years in order to boost electricity supply as well as meeting the increasing demand of its citizens (Federal Ministry of Information and National Orientation, 2002).

However, Nigerian power sector is performing below the level of its peer countries. More than half of the Nigerian population estimated at 55% has no access to electricity and those who are connected to the grid have been identified to have suffered extensive power outages. Thus, Nigeria as a nation is lagging when compared to most developing nations in terms of grid based electricity consumption. Besides, based on current global trend Nigeria's electricity consumption should be four to five times higher than what it is today. For instance, in Sub-Saharan Africa, country like Ghana's per capita consumption have estimated at (361kWh) which is 2.9 times higher than Nigeria while South Africa per capita consumption have estimated at (3,926kWh) which is 31 times higher than Nigeria (Ogunbiyi & Abiodun, 2015).

Therefore, to address these challenges facing the Nigerian power sector, the Federal government under former President Olusagun Obasanjo designed the Electric Power Sector Reform Map in 2005 and 2010 the Roadmap for Power Sector Reform was launched. The implication of this was that the default National Electric Power Authority (NEPA) was renamed the Power Holding Company of Nigeria (PHCN) which was unbundled into separate generation and distribution companies and the Transmission Company of Nigeria (TCN). Moreover, from 2013, the generation and distribution companies were handed over to private owners with the Federal Government of Nigeria retaining a minority stake. Today, the Transmission Company of Nigeria (TCN) own and control by the Federal Government of Nigeria though TCN is currently under a management contract with Manitoba Hydro International (MHI).

On the whole, efforts have been made by past administrations to revamp the power sector in Nigeria in order to improve the rate of electricity supply that will meet the needs of the country this have so far yielded little or no result. Despite, huge resources that have been invested in the power sector by the government much is yet to be desire about the state of electricity supply in the country. It is against this study seeks to assess the role of government interventions in electricity supply in Nigeria and identify the various challenges bedeviling electricity supply in Nigeria.

Theoretical Framework

There are various approaches used by Scholars and Researchers to the study reforms in any society among them are system approach, Institutional building approach, Management (Process) approach, Behavioural approach and Output oriented approach etc. This study adopts the Output oriented approach to the understanding of reform to it investigation. The Output

oriented approach focus on human needs and the need to raise quality of life of the citizens in any society, which represent the central purpose for which the state exists.

Reforms are geared towards improving socio-economic wellbeing of the citizens and equally provide the needed opportunity for them to develop their potentials (Obasi, 1990, Dashe, and Wapmuk, 2005). The Output oriented approach is not elitist in nature rather it takes into consideration the various stakeholders in the society compared to the system approach, Institutional building approach, Management (Process) approach, and Behavioural approaches (Akor & Momoh 2017).

The Output oriented approach focus on output of reforms as it affects the welfare of the citizens. It does not assume that mere administrative reforms and increase in the quality and quantity of inputs will result in increase in outputs. Dashe, and Wapmuk, (2005:177) posits that experiences have shown that reliance on the former results in unsatisfactory outputs. By and large, this study employs the Output oriented approach to reform in its investigation.

Federal Government Subvention for Electricity Supply in Nigeria (1958-1998)

Nigeria power sector have been receiving support since colonial era. However, despite the huge annual budgetary allocation to the Nigeria power sector, Nigerians are faced with the problem of epileptic power supply when compare to other parts of the world. Table 1 below shows the annual budgetary allocations from 1958 to 1998.

Table1: Federal Government Subvention to the Nigeria Power Sector (1958-1998)

YEAR	CURRENCY (NAIRA)	CURRENCY (US \$)	ADDITIONAL CAPACITY (MW)	PEAK CAPACITY (MW)
1958	-----	-----	21.5	-----
1959	-----	-----	20.6	42.10
1960	-----	-----	0	42.10
1961	-----	-----	0	42.10
1962	-----	-----	0	42.10
1963	-----	-----	0	42.10
1964	-----	-----	0	42.10
1965	-----	-----	-----	42.10
1966	-----	-----	36.00	78.10
1967	-----	-----	-----	78.10
1968	-----	-----	320.0	398.10
1969	-----	-----	-----	398.10
1970	-----	-----	-----	398.10
1971	-----	-----	-----	398.10
1972	-----	-----	-----	398.10
1973	1,392,552.00	0	-----	398.10
1974	25,350,000.00	15,796,360.92	-----	398.10
1975	115,013,000.00	71,083,436.34	120.00	518.10
1976	160,000,000.00	100,496,199.99	335.60	853.70
1977	207,079,987.00	134,223,482.63	-----	853.70
1978	509,210,000.00	324,193,034.95	1,190.00	2,043.70
1979	540,000,000.00	326,173,621.01	-----	2,043.70
1980	370,000,000.00	203,341,393.71	-----	2,043.70
1981	222,481,000.00	136,726,278.27	300.00	2,343.70

1982	112,370,280.00	75,843,871.49	312.00	2,655.70
1983	11,530,000.00	8,356,706.68	-----	2,655.70
1984	167,571,370.00	128,436,705.76	-----	2,655.70
1985	110,189,433.00	98,931,076.46	440.00	3,095.70
1986	17,666,660.00	10,640,002.41	980.00	3,075.70
1987	282,303,446.90	69,142,875.63	440.00	4,515.70
1988	143,596,149.00	31,818,335.70	-----	4,515.70
1989	14,922,058.00	2,005,464.27	150.00	4,665.70
1990	15,000,000.00	1,853,591.02	1,050.00	5715.70
1991	26,625,513.00	2,678,407.47	-----	5715.70
1992	23,750,000.00	1,359,971.60	-----	5715.70
1993	152,203,000.00	6,921,873.51	-----	5715.70
1994	142,425,639.10	6,475,069.97	-----	5715.70
1995	1,426,276,710.00	18,603,698.24	-----	5715.70
1996	1,179,199,250.00	14,440,158.78	-----	5715.70
1997	1,000,000,000.00	12,191,880.70	-----	5715.70
1998	2,700,000,000.00	32,060,378.00	-----	5715.70

Source: (Federal Ministry of Information and National Orientation report 2002:30)

Table 1 above shows the flow of government subvention to the Nigeria power sector from 1958 to 2001. It also shows annual budgetary allocation in naira and in dollar equivalent. Table 1 also shows the various additional capacity of megawatts generated each year vis-a-vis the peak capacity for each year. . The highest subvention was achieved in the year 1979 when NGN540, 000,000.00 equivalents of 326,173,621.01 million US dollars was allocated to the power sector. While, the peak electricity generation capacity was 6,261.70 megawatts.

President Olusegun Obasanjo allocated the sum of twenty-five point five billion (NGN25.05 Billion) to the National Electricity Power Authority (NEPA) for the expansion of 19 transmission lines that was expected to generate at least 400 megawatts electricity which will be added to the existed 4,000 mega watts (Federal Ministry of Information and National Orientation, 2002). Besides, the World Bank as at June, 2009 approved the sum of \$200 million for the Gas Improvement Project and electricity supply in Nigeria which was targeted at increasing electricity transmission and improving service delivery in the country (DFID, 2009:15).

In the 2009 budget, the Federal Government of Nigeria allocated NGN99.6 billion NGN (about US\$0.7 billion equivalent) to the power sector. This was complemented by an additional 30.76 million NGN (about USD0.21 billion equivalent) to the power sector in the 2009 Supplementary Budget (which totals NGN102.3 billion), approved by the National Assembly in July 2009. In August 2009, the Federal government gave a budgetary allocation of about 70% of the power sector to demonstrate its commitment to accelerate critical reforms in the power sector (African Development Bank Group, 2009).

Also, in February 2015, the Federal Government of Nigeria through the Central Government of Nigeria allocated N213 billion (about US\$1.8 billion) to the Nigerian Electricity Market Stabilisation Facility (CBN-NEMSF) at a concessionary interest of 10% per annum. Thus, going by the Central Bank of Nigeria (CBN) Regulation, the purpose of the CBN-NEMSF fund was to address balance deficit of Market Participants, Service Providers and gas suppliers that accrued during the Interim Rules Period (Interim Rules Debt or IRP Debt), as well as Legacy Gas Debt of the PHCN generation companies owed to gas suppliers and the Nigerian Gas

Company (NGC) which had been transferred to the Electric Liability Management Company (NELMCO) (the Legacy Gas Debt) (Ajumogobia & Okeke, 2015).

On the whole, considering the enormous resources spent by past governments in Nigeria since the late 50's Nigeria is still far from achieving the desired electricity supply that will address the demand of its growing population and in turn improve socio-economic activities in the country.

Power Sector Reforms in Nigeria

Over the years, several legal frameworks have been put in place to address the challenges bedeviling the Nigerian power sector such as Electricity Corporation of Nigeria Ordinance (1950); Niger Dam Authority Act 1962; National Electric Power Authority Act, Cap 256, Laws of the Federation of Nigeria (LFN) 1990 (as amended); Electricity Act, Cap 106, LFN(1990) (as amended); Constitution of the Federal Republic of Nigeria 1999, CAP C23, LFN (2004); Public Enterprises (Privatisation and Commercialisation) Act, CAP P38, LFN (2004); Environmental Impact Assessment Act (EIA), Cap E12 LFN (2004); Electric Power Sector Reform Act, No. 6 of 2005 (EPSR Act); National Environmental Standards and Regulations Enforcement Agency (Establishment) Act No 25 of 2007; Electric Power Sector Reform (Transfer of Assets, Employees, Liabilities, Rights and Obligations) Order No. 1 of 2006 (SC Order); National Domestic Gas Supply and Pricing Regulations; National Domestic Gas Supply and Pricing Policy and Roadmap for Power sector Reform of 2010 (Roadmap).

Moreover, the state of infrastructural decay prior to May 29, 1999 was captured in President Olusegun Obasanjo inauguration speech in which he said that:

“Our infrastructure-NEPA, NITEL, Roads, Railways, Education, Housing and other social services-were allowed to decay and collapse. Our country has been through one of its darkest periods. All these have brought the nation to a situation of chaos and near despair” (Federal Ministry of Information and National Orientation, 2002:145).

During the President Olusegun Obasanjo's administration, the Federal Ministry of Power coordinated the activities of the various successor companies like the Niger Delta Power Holding Company Limited (NDPHCL) and the Bureau of Public Enterprise (BPE) in addressing various government projects such as: (i) the rehabilitation program to meet short-term generation, transmission and distribution capacity targets; (ii) the NIPP program to meet medium-term generation, transmission and distribution capacity targets; and (iii) the implementation of the reform program, including the establishment of management boards for the successor companies and continuation of the privatisation program (African Development Bank Group, 2009).

The Bureau of Public Enterprise (BPE) was established to handle the privatisation of government-owned enterprises. The NDPHCL is managing the NIPP program. On the other hand, the Nigerian National Petroleum Corporation (NNPC) is responsible for developing a strategy for the sustainable exploitation of Nigeria's natural gas reserves. The Nigerian National Petroleum Corporation (NNPC) began work on a Gas Master Plan in 2005, with the aim of: (i) attracting private sector participation in the development of Nigeria's gas resources; and (ii) securing a quota of natural gas for the domestic market at cost-reflective prices (African Development Bank Group, 2009).

The Federal Government of Nigeria has adopted a four-pronged approach to resolving the supply constraint: (i) rehabilitate and reinforce existing assets; (ii) continue to implement the NIPP; (iii) extend electricity meter coverage; and, (iv) Implement the Gas Master Plan. The objective of the NIPP was three-fold: (i) complete construction of three new power stations by end-2007; (ii) provide an additional 2,700MW of generation capacity (increased to 4,800MW);

and, (iii) reinforce and expand the transmission and distribution infrastructure. In parallel, a program of extension of the coverage of pre-payment meters is underway, in order to improve revenue collection and the prospects of private participation (African Development Bank Group, 2009).

To redress the ugly state of electricity in Nigeria, the Federal Government of Nigeria enacted the Electric Power Sector Reform Act (EPSRA) in May 2005 and launched the National Integrated Power Projects (NIPP) initiative in 2006. The goal of the National Integrated Power Projects (NIPP) is to bridge the immediate supply/demand gap and reduce the bottlenecks in the power delivery system. The reforms were aimed to create an environment that would attract and retain much needed private sector finance and long-term participation. Also, the Electric Power Sector Reform Act (EPSRA) enabled the restructuring and unbundling of the National Electric Power Authority (NEPA) and the establishment of the Power Holding Company of Nigeria (PHCN) in 2005. Eighteen successor companies were created under the PHCN: (i) six for power generation; (ii) one transmission company; and (iii) eleven distribution companies. The Electric Power Sector Reform Act (EPSRA) also enabled creation of the Nigerian Electricity Regulatory Commission (NERC), whose role includes: (i) promoting competition and private sector participation; and (ii) ensuring fair prices to customers, while allowing operators to finance their activities with reasonable returns for efficient operation (African Development Bank Group, 2009).

Under the Electric Power Sector Reform Act (EPSRA), the successor companies were privatized, with the exception of the Transmission Company of Nigeria (TCN). The TCN remained under public ownership but as a commercial entity subject to regulatory oversight by the NERC. The Federal Ministry of Power (FMP) issues general policy directions to the NERC, including on overall system planning and co-ordination, which the NERC took into consideration in discharging its functions, provided that such directions are not in conflict with the Electric Power Sector Reform Act (EPSRA) or the Constitution. The Nigerian Electricity Regulatory Commission (NERC) is expected to produce quarterly reports to the President and the National Assembly on its activities.

The overall results of the ongoing National Independent Power Project (NIPP) have so far been limited. Three power stations were commissioned in 2007, but their impact has been modest due to a shortage of gas to fire them. The NIPP initiative was interrupted in 2008, as the National Assembly conducted a review of the power sector. The implementation of a Gas Master Plan began in 2008. The objectives, amongst others, include: (i) expanding existing gas processing infrastructure; (ii) reinforcing and extending the gas distribution network; and (iii) developing and phasing in cost reflective gas prices to ensure a sustainable supply of gas to power stations from October 2008. However, the overriding challenge is the ongoing Niger Delta unrest. Frequent vandalism of the gas supply infrastructure has been a major cause of power supply interruptions (African Development Bank Group, 2009).

Today, Nigeria has the following Electricity Distribution Companies (DISCOs) to includes Port-Harcourt Electricity Distribution Co. Plc; Abuja Electricity Distribution Co. Plc, Benin Electricity Distribution Co. Plc, Ibadan Electricity Distribution Co. Plc, Ikeja Electricity Distribution Co. Plc, Eko Electricity Distribution Co. Plc, Yola Electricity Distribution Co. Plc, Jos Electricity Distribution Co. Plc, Kano Electricity Distribution Co. Plc, Kaduna Electricity Distribution Co. Plc and Enugu Electricity Distribution Co. Plc. Also, Nigeria Generating Companies (GENCOs) includes Geregu Power Plc, Afam Power Plc, Sapele Power Plc, Ughelli Power Plc, Shiroro Power Plc, and Kainji Power Plc.

Lastly, going by present electricity generation, Nigeria generate between 4,000 and 6,000 MW which is equivalent to the power generation of Maine or Monatana. Therefore, in order to address the huge electricity deficit in Nigeria. The federal government has invested \$ 3 billion on the privatization plan in order to expand electricity generation and distribution across the country. The aim has been to increase the installed capacity of 10,000 to 40,000 MW by 2020. However, this will still be inadequate because an industrial economy requires an estimated 1,000 MW for every one million people (Bright & Hruby 2015: 98) when placed side-by-side with Nigeria population estimated at over 180 million people, shows that efforts to improve electricity supply is required.

Challenges of Electricity Supply in Nigeria (1999-2017)

Studies have shown that for African society to transform from agricultural-and-resource-based economies to modern industrial society, electricity is urgently needed. This is because the weak productive base of Sub-Saharan African countries is attributed to poor electricity supply. Available statistics has it that 48 Sub-Saharan African countries have combined generation capacity smaller than Spain's, despite having an estimated 25 times as large. Also, Nigeria the most populous country in the African continent provides one-third the power of its developing country peers and electricity supply represent up to 40 percent of manufacturing costs, thereby making industries uncompetitive (Bright & Hruby 2015:97-98).

In rural societies in Africa, there are electricity gaps such that most part of Africa lives in darkness as large percentage of the citizens pay heavily like 3.5 times what an average American pays for a kilowatt per hour for electricity. For instance, there are more than 60 million generators in Nigeria which shows that almost 90 percent of all businesses in Nigeria have diesel generators. Also, an estimated 30 percent of households in Nigeria run their generator in order to offset erratic power supply. Besides, MTN one of the biggest telecom companies in Nigeria, pay an estimated \$6 million per month for diesel to fuel its 6,000 generators across the country, and Nigeria spend an \$4.8 billion annually for electricity supply (Bright & Hruby 2015:97-98).

Available record have it that over half of Nigerian population estimated at 55% does not have access to grid-connected electricity, and those that do, suffer from intermittent power supply. According to the World Bank, an estimated 41% of Nigerian businesses generate their own power supply to augment the national grid supply. Besides, stable and constant electricity is vital to the economic and social welfare of the country. The implication is that there is a huge electricity gap in Nigeria; this has had negative impact on women who often relied on spending part of their day in search for wood for cooking.

Action Aid report (2015) asserts that despite Nigeria's vast energy potential, electrification remains a serious problem, especially in the rural areas. The former Minister of Power, Works and Housing Babatunde Fashola remarked that:

"The simplest way to put it is that we do not have enough power...power cannot be ready unless it is enough. Not only must it be enough, we must create excess capacity" (Alike, cited in *This Day the Sunday September 10, 2017:22*).

Mr. Peter Ewesor, Managing Director of Electricity Management Service Limited (EMSL) asserts that in spite of the high expectations and promises on account of the privatization of the Nigerian power sector, Nigerians have hitherto not feel the positive impact of the sector (This Day, The Sunday Newspaper May 3, 2015).

The major power gaps seriously impede the growth of the non-oil sector and, as a result, job creation and poverty reduction. About 45% of the population has access to electricity, with

only about 30% of their demand for power being met. The power sector is plagued by recurrent outages to the extent that some 90% of industrial customers and a significant number of residential and other non-residential customers provide their own power at a huge cost to themselves and to the Nigerian economy. The total capacity of power self-generation units in Nigeria is estimated at about 2,500MW.

Electricity was found to be by far the most binding constraint to doing business in Nigeria for more than 80% of firms surveyed. Electricity-induced indirect losses of firms account

for 61%, followed by transportation (26%), bribery (11%), theft, robbery and crime (2%). As at December 2008, installed capacity stood at 8,000 MW, of which only around 50% is in operable condition. The gap in the power sector has far reaching implications for sustained economic growth and social wellbeing of Nigerians. About 45% of the population has access to electricity, with only about 30% of their demand for power being met. The Investment Climate Assessment of Nigeria, completed in 2008, with the joint support of the World Bank and the African Development Bank (AfDB) found that electricity is by far the most binding constraint to doing business in Nigeria.

One of the challenges identified as responsible for the epileptic power supply in Nigeria is “overloaded transformers” which in most cases are “*unmaintained*”. The Federal Ministry of Information and National Orientation report (2002) states that the distribution sub-sector of the power sector is beset with “overloaded transformers, unmaintained, “*cobweb-like*” power lines, while irregular billing with erroneous or arbitrarily estimated bills and illegal connections were the order of the day in the marketing sub-sector. The problem has hitherto not been addressed as most parts of Nigeria experience epileptic power supply while in some places total darkness thereby making mockery of the huge investment of the government in the sector.

Also, shortage of gas supply to the newly built power plants has hindered the smooth functioning of most power plants in Nigeria. Abudulkadir, (2013) posit that one of the major reasons why the National Independent Power Plants (NIPP) such as Geregu, Sapele, Olorunsogo and Omotosho power plants which has a combined capacity of about 1700MW failed was that there is lack of sufficient gas supply to these newly built plants. He added that gas constraints have been responsible for an estimated 1500MW low capacity (Baobab Magazine, 2013:13).

Similarly, Okafor (2017a) asserts that in April 2017 inadequate supply of gas to power stations across the country as well as water management dropped the electricity generation volume to 2,785 megawatts, leaving the entire country with 3,624.90 megawatts of electricity transmit across the eleven (11) distribution networks. Also, available records from both the Federal Ministry of Power, Works and Housing and National Electricity Regulatory Commission (NERC) shows that as at April 5, 2017 the average electricity generation estimated at 3,441 megawatts increased to 3,695 megawatts which later dropped to 3,624.90 megawatts. The shortage in gas supply and water management affected the level of electricity generation which stood at 2,695 megawatts and 90 megawatts respectively. As at April 11, 2017 an average of 2,950 megawatts electricity capacity was transmitted and it further dropped by 254 megawatts while reported gas challenges were estimated at 2,627 megawatts and a high frequency challenge was recorded at 27 megawatts (This Day The Sunday Newspaper April 16, 2017).

In addition, the Nigerian Power Sector have witnessed considerable decline in recent years despite the establishment of 23 power plants by the Federal Government in some parts of the country. In the same vein, Dr. Sam Amadi, the Chairman National Electricity Regulatory Commission (NERC) asserts that Nigeria has loss over 2000 megawatts of electricity from the national grid due to shortage of gas to the respective power stations. He added that 18 out of the

23 power plants are unable to generate electricity due to shortage of gas supply to the thermal plants with one of the hydro stations reported to have failed (Ochayi, 2015).

The Federal Ministry of Information and National Orientation report (2002) also identifies low morale, indiscipline and corruption to have pervaded the entire power sector. This explains while Momoh, (2013) rightly observe that the NdidiElumelu's Power Sector Committee probe remains one scandal that cannot be forgotten in a hurry each time there is power outage. Also, technical losses of more than 40 percent have been recorded in the power sector as well as poor payment life style by some Nigerians has resulted to collections of less than 50 percent of power generated (Federal Ministry of Information and National Orientation report 2002:12).

Consequently, former Senate President David Mark identifies the existence of quacks in the power sector as another challenge facing the sector. He further attributed the importation of electricity product rather than manufacturing some of the electricity tools that would complement the imported ones to be responsible for the snail speed rate of development in the power sector which does not give credence to the privatization exercise of the government and expectations of Nigerians (This Day, The Sunday Newspaper, May 3, 2015).

Yet, the Nigerian Institute of Electricity and Electronic Engineers (NIEE) identifies absence of diversification of sources of power generation, inadequate skilled manpower and low technical development as critical challenges to the power sector (Ogunnaika, 2013 cited in Oluwashakin and Aleyomi, 2014:202). Besides, Oluwashakin and Aleyomi, (2014:202) identifies poor service delivery and collection to be responsible for the slow pace of electricity supply in Nigeria. This position is similar to the assertion of the Federal Ministry of Information and National Orientation report (2002) on the causes of power outage in the country. This further explains while despite the epileptic power supply some Nigerians found it difficult to pay their electricity bills due to poor service delivery.

DFID Report, (2016) states that:

"One area in which the impacts of low investment have been strongly felt is in the power sector. Despite having the continent's largest economy, Nigeria also has the highest number of Africans (96 million) living without access to electricity. Increasing access is a key component of the poverty reduction strategy in Nigeria. It can improve the productivity and output of enterprises; create jobs and free people from the burden of self-generation (which is usually more expensive). Greater access can create a positive feedback loop by increasing incomes and allowing the poorest to invest in education and other productive resources that are central to sustainable development" (DFID, 2016:25).

Furthermore, low capital investment has been identified as a problem bedeviling the Nigerian power sector. Other challenges identified by the Department for International Development (DFID) include lack of regulatory framework for the power sector and fixing tariffs (DFID, 2009:14). However, it has been argued that there have been widespread opinions that the price of electricity tariff has been kept high for the poor. Yet, when the cost of buying and running private generator is placed side-by-side with the current electricity tariff, the cost of buying and running a private generator is far higher.

In addition, another challenge facing the Nigerian electricity distribution is metering challenge. Available record as at August, 2017 from the Nigerian Electricity Regulatory Commission (NERC) shows that from the 11 electricity distribution companies in the country eligible electricity users within the network of the 11 electricity distribution companies were estimated at 7,476,856, while meter users were 3,451,611. This shows that there is a gap of 4,025,611 and the collective metering percentage of 46.16 percent. Besides, the same records shows that four

electricity distribution companies of Abuja, Ikeja, Eko and Benin were top on the list with meter deployment efforts with 52.17 percent, 55.95 percent, 60.73 percent, and 69.49 percent deployment respectively. Moreover, electricity distribution companies from Enugu, Kaduna, Kano and Yola were behind with the meager of 27.72 percent, 37.24 percent, 34.43 percent and 23.61 percent respectively. Electricity distribution companies from Ibadan, Jos, and Port Harcourt maintained average meter deployment percentages of 41.35 percent, 48.72 percent and 48.54 percent respectively (ThisDay The Sunday November 19, 2017 Page 21).

By and large, the politics of localization of power stations is also an issue that has affected the Nigerian power sector over the years especially over the sitting of power stations in the country. Under normal circumstances it would be reasonable to locate any power station that will be powered by gas especially in the southern part of Nigeria due to availability of gas reserve in the area than in the northern part of Nigeria. But some Northern elites would want to have control over their source of power supply. This explains while some power stations that are expected to use gas that are located in the hinterland of the country are starve of gas supply, thereby affecting the capacity of these gas plant to function optimally.

Recommendations

From the challenges identified facing the Nigerian power sector, we recommend that:

Firstly, the Federal Ministry of Power, Works and Housing should intensify efforts in fast-tracking the completion of pipelines from gas points to the various power stations as well as provide adequate security that will ensure the protection of the gas pipelines from vandals. Secondly, the Nigerian Electricity Regulatory Commission (NERC) should as a matter of urgency step up its role as a regulatory agency of the government to mediate in the frequent occurrence of conflicts emanating from the sector as a result of disregard of laid down rules and regulations. Thirdly, the Federal Ministry of Power, Works and Housing should intensify effort in ensuring that the desired skill manpower is employed in the Nigerian power sector so as to help address the issue of quackery. This can be achieved when the National Power Sector Apprenticeship Scheme (NAPSAS) whose mandate is to provide adequate skill training for technical staff in the area of distribution sub-station operation, cable jointers, linesmen, pole climbers and electrical fitters is strengthening through funding and monitoring. Similarly, firms operating in the Nigerian power sector should be encouraged to replace obsolete equipment and improve the quality of service delivery. Aside, that there is the need for more private sector investment in the Nigerian power sector. For instance, over \$70 billion dollars of investment in the power grid is required, and the only realistic source for this amount of capital is the private sector (DFID, 2017). In addition, improving gas supply to various power stations is also important in achieving sustainable power supply in Nigeria based on current trend. For instance, from 2010 to 2013, the gas industry received USD6 billion less than required from Nigerian National Petroleum Corporation (NNPC) to fully implement its joint-venture business plans on an annual basis. Addressing these funding challenges could increase gas production by 2.8 bscfd by 2020. Thus, gas has remained the primary feedstock for the Nigerian power industry and the failure to deliver will have a negative impact on all levels of electricity generation and distribution. Therefore, present and future power stations in Nigeria will not meet power demand unless gas supply improves tremendously. Furthermore, the Nigerian Electricity Regulatory Commission (NERC), Nigerian Bulk Electricity Trading (NBET) and other relevant operators in the power sector should draft and implement strategic framework that will help address the financial problem facing the power sector. This will in addition, regulate the actions of stakeholders of the Nigerian power sector from gross disrespect for the various financial and governance mechanisms that guild the market operation especially as regards to tariff. Finally, the federal government needs a strong political will to improve the generation capacity of power

in Nigeria. Therefore, going by experts' projection, for Nigerian economy to grow at the rate of 10%, the nation's power output is expected to reach 30,000 megawatts by 2020 and by 2030 the expected projection should be 78,000 megawatts. Thus, the right time to put in place the right strategic frameworks and invest in the Nigerian power sector that will galvanize the desired growth in the Nigerian economy is now.

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CORRUPTION IN DEVELOPING COUNTRIES: IMPLICATIONS ON SUSTAINABLE DEVELOPMENT IN NIGERIA

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ABSTRACT

The objective of this article to investigate the implications of corruption on sustainable development in developing countries, Nigeria as a reference State. The study adopted desk/literature review, using secondary data. Two theories have been adopted: functionalist approach and dysfunctionality of state theory. The proponents of the functionalist approach are modernisation scholars who made attempt, not to justify corruption, but to prove that corruption facilitates economic growth in some developing countries. In contrast, the dysfunctionality of state theory posits that subversive appropriation of the bureaucracy by ethnic and tribal networks in the developing countries stemmed from colonial experience. The finding of the study indicates that corruption and (sustainable)development are complex terms, but corruption is inimical to sustainable development, because the latter denotes multifaceted progress in many aspects of human societies over time, while the former involves a variety of deleterious effects on all aspects of human lives. The article concludes that the journey to sustainable development is difficult if corruption is regarded as a norm in developing countries. To overcome the menace of corruption, the article recommends the need for code of conduct, preventive measures, formalised policies and procedures, conducting awareness training, etc.

Keywords: Corruption in Nigeria, Implications of Corruption, Sustainable development

INTRODUCTION

Corruption as a subject of study and/or a topic of research interest has a long tradition in within the wing of social thought. Historically, Friedrich (2002) and Muno (2013) have both traced the origin of study on corruption to the ancient Greece, as evident in the works of Plato and Aristotle. In the contemporary world, the corruption is still regarded as a social problem that cuts across both developed and developing countries. There are many studies that examined the extent, causes and implications in developed countries of Europe (Nelken, 2003; Jiménez & Caínzos, 2003; Andvig, 2014) and North America (Williams, 2003; Muno, 2013). The same with the developing countries (Mukhtar, 2015; Mukhtar & Dangiwa, 2017). Thus, Loughman, Sibery, Ernst & Young (2012: 1) contend that:

From developing countries in Africa, Latin America, and Asia to the United States, Western Europe, and the United Kingdom, bribery and corruption continues to create an uneven playing field in international trade, commerce, and the process of government. Problems range from the small payment demanded by a customs official to inappropriately process an import package, to multimillion-dollar payments to secure a large government contract. These are just two examples of the myriad of scenarios that businesses face in the international market place.

It is however, agreed that corruption is more prevalent in the developing countries (Elliot, 1997; Anders & Nuijten, 2007; Mukhtar, Dangiwa & Haruna, 2017). In developing countries of Africa like Nigeria, corrupt practice among public office holders, companies and small business people is an old social vice, taking place the first half of the 20th century (Smith, 2007). Multiple factors account for the prevalence of corruption in the developing world. As observed by Loughman *et al.* (2012:1) some refrains are the reasons given to make corrupt payments, such as “A part of the culture.” “The cost of doing business.” “Our competitors are doing it.” “Not a big deal.”

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Literature have indicated that corruption poses a serious challenge to sustainable development of the poor countries. The central themes in sustainable development are improved and sustained human wellbeing, social justice, sustainable economic growth, critical limits and improved environmental quality, for which a long term time horizon are laid out (Parrish, 2008). But with widespread corrupt practices, achieving justice, political stability and economic growth is very difficult. Corruption affects “weak” states of Africa, Asia, Latin America, and Eastern Europe because their democratic structures are rudimentary. This follows the notion that corruption is one of the major causes of poverty and underdevelopment (Anders & Nuijten, 2007). Corruption breeds great economic losses for the developing world as it makes business contracts insecure, thereby leading to uncertainty and lack of trust among the citizenry, as well as unnecessary delays in the discharge of bureaucratic duties (Anders & Nuijten, 2007). In countries like India and Indonesia, environmental degradations are perpetrated by public officials and private companies through corruption. For example, officials in Indonesia are reported to embezzle forest management funds (Human Rights Watch, 2009).

It is therefore necessary for constructive measures to be developed to specifically combat corruption and its attendant consequences on consequences in the developing nations. Loughtman *et al.* (2012) observed that responses to corruption have not begun until in recent years and the development has attracted global changes. One would hardly identify a country that has not banned corruption within its own borders. Even the most remote, undeveloped, totalitarian regimes have enacted laws against bribery, they albeit selectively enforce these rules (Loughman *et al.* 2012). Consequently, corruption persists despite the efforts made by such organisations as United Nations Office on Drug and Crimes (UNODC), Organisation of Economic Co-operation and Development (OECD), Transparency International, and some states’ agencies, like Economic and Financial Crime Commission (EFCC), Independent Corrupt Practices and other related Crimes (ICPC), and Code of Conduct Bureaus (CCB) in Nigeria. This implies that achieving sustainable development will become a mirage in many developing countries, if corruption is allowed to flourish.

In view of this background, the Article is designed to investigate the implications of corruption on sustainable development in developing countries, Nigeria as a reference State. The Article is divided into seven sections, with this introductory section being the first. The second section conceptualises the key terms (corruption and sustainable development); section three provides a theoretical underpinning for corruption and its impact on sustainable development; section four discusses the implication of corruption on sustainable development; section five provides some policy implications and recommendations; and section six concludes the article.

Conceptual Clarifications

Corruption: Corruption is defined and perceived across a spectrum of socially unacceptable, morally disapproved transactions and illegal payments such as bribes, embezzlement, and money laundering among others. Broadly, corruption is either conceived as a violation of moral or legal instructions. To define corruption primarily in moral rather than legal terms has a long tradition, but today’s legal prohibitions of bribery, theft, embezzlement, and the misuse of public property for private gains constitute the secular avatars of ethical principles once formulated by moral philosophers and theologians (Anders & Nuijten, 2007).

“Since corruption is illegal, capturing the amount of corruption is not possible, by analysing the amounts of corruption payments that have proven to be so in court” (Price Waterhouse Cooper, 2016: 7). Yet, this is too narrow to depict corruption in the Nigerian context. Given that Nigerians see corruption as an act that can take place not only in public offices but also in a wide range of commercial exchanges and interpersonal relations, tying to define corruption as a

strictly public officials' affair or something occurring in the context of state administration is overly limiting (Smith, 2007). On this note, it could be said that there is more to corruption than the mere transgression of rules governing the conduct of public officials because the word may also refer to "the individual feeling of moral depravity and perversion or to the moral decay of whole societies" (Anders & Nuijten, 2007: 1).

Consequently, this article defines corruption as "a legally and morally unacceptable act involving self-serving individual(s) or groups(s), who either usurp or siphon the public treasury because their influence or mutually motivate themselves with exchange of favour between as agents of public or private organisations". This working definition attempted to take into cognisance the legal and moral dimensions of corruption, some forms of corruptions are exclusively legal violations, others are typically moral violations; and there are those that combine the two.

Sustainable Development: The concept of sustainable development is contentious because its meaning is complex as it covers wide variety of ideas- from social, political, environmental to economic. That is why sustainable development has been defined in many ways. However, the most frequently used definition is from *Our Common Future*, also known as the Brundtland Report. Brundtland Report defined sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (International Institute for Sustainable Development, 2015). As captured by Ibrahim (2017: 175), sustainable development is a paradigm "shift from concern over immediate progress for the benefit of present generation to a more encompassing and everlasting social, educational, economic, political, and environmental transformation for the benefit of future generation".

In other words, it is outstretching focusing on wellbeing of the present generation to combine emphasis on both the wellbeing of the present and future generations by maintaining a balanced ecosystem, social justice and optimum economic growth. This is because, to achieve meaningful development, there should be effort at modifying the biosphere and apply human, financial, living and non-living resources so as to satisfy human needs and improve quality of human life (Parrish, 2010). For development to be sustainable it must take account of social and ecological factors, as well as economic ones; of the living and non-living resource base (Parrish, 2008).

As pointed out by Barlund (2005), sustainable development entails two key concepts: 1) the concept of *needs*; that is the essential needs of the world's poor, to which overriding priority should be given; and 2) the idea of *limitations* imposed by the state of technology and social organisation on the environment's ability to meet present and future needs. The concept supports strong economic and social development, in particular for people with a low standard of living. At the same time, it underlines the importance of protecting the natural resource base and the environment. Economic and social well-being cannot be improved with social issues that destroy the environment. Corruption is one of them. Also, intergenerational solidarity is crucial given that all developments have to take into account its impact on the opportunities for future generations, which can also be destroyed by the present generation if it has corrupt tendency.

Theoretical Framework

As discussed in the introductory section, both corruption and (sustainable)development are multifaceted terms, covering social, economic, political, educational, technological, and environmental aspects of a society or country. However, corruption is a negation of development. Whereas the latter denotes multifaceted progress in many aspects of human societies over time, the former involves a variety of deleterious effects on all aspects of human

lives. The new academic scholarship on corruption draws on neo-liberal thinking and identifies bloated and inefficient state bureaucracy riddled by widespread corruption as the main cause for underdevelopment since it impedes the expansion of the private sector, which is rooted in society (Anders & Nuijten (2007).

Croall (2010) mentioned that corruption involves undue gratification in all facets of people lives and at all levels. Corruption takes place in local authorities, public sector, political spheres, and in commercial organisations. It further leads to infringement of occupational health safety; car safety; pricing offences, proliferation of counterfeit goods, bastardises marketing practice, food frauds or food safety, and environmental crime, among others (Mukhtar, 2015). In line with the above, two theories emerge: functionalist approach (Leys, 1965; Huntington, 1968) and dysfunctionality of state theory (Mbembé, 1992, 2001).

The proponents of the functionalist approach are modernisation scholars who made attempt, not to justify corruption, but to prove that corruption facilitates economic growth in some developing countries. Huntington (1968) advanced a logical argument which states that, corruption serves as an efficiency-enhancing mechanism because it removes rigidities imposed by the government which constitute impediments to investments and interfere with economic decisions favorable to national development, with examples by Huntington on some Asian developing countries, like Thailand and Indonesia. Leys (1965) argued that the fallacy about corruption is that it is natural to assume that the results of corruption are always both bad or always important. In a pragmatic tone, Leys argued that where bureaucracy is both elaborate and inefficient, the provision of strong personal incentives to bureaucrats to cut red tape may be the only way of speeding the establishment of a new firm”.

Huntington (1968: 60) made a similar point when he argued that “modernisation breed[s] corruption” in an early stage of a country’s development. To clarify this, Huntington compares corruption to violence since during a period of rapid modernisation they are the two means by which individuals and groups relate themselves to the political system in ways which violate the regulations of the socio-political system. Huntington explanation can be used to understand the rationale for corruption among some Nigerian Government officials and owners of private companies, who willingly exchange favours, such as offering bribe to an agent is presumed to hasten business process.

As noted by Anders & Nuijten (2007), the modernisation paradigm, the functionalist approach appears to be anachronistically naïve and optimistic, but the idea of the dysfunctionality of state institutions remains at the core of policymaking as well as part of the academic debate on development. The dysfunctionality of state view harks back to a debate of the 1960s and 1970s when some studies on the influence of corruption on the development of newly independent states in Africa and Asia challenged the moralistic view that corruption was evil and harmful to development. The dysfunctionality of state theory draws to some extent its argument from Weberian legal-rational analysis of the modern society.

And, although both theoretical approaches seem to be fundamentally opposed to each other, they share one basic premise on the division between state and society. Views advanced by Huntington and Leys also assume the absolute division of state and society but they argue that the dysfunctionality of the state, due to the gap with society, is a mere problem of adaptation, according to them, will eventually disappear as modernisation progresses. Mbembé (2001), and many other scholars who share the same view, conceptualise the subversive appropriation of the bureaucracy by ethnic and tribal networks as a distinctly developing countries’ creation stemming from the colonial experience. For example, studies on Africa, Asia and Latin America have largely highlighted the importance of patron-client relationships and usually point to their

influence on the working of the state bureaucracy as the main cause of corruption (Mbembe, 2001; Anders & Nuijten, 2007). These researchers do not differentiate the so-called clientelistic relations that usurp the state institutions. They therefore unwittingly reproduce the dualism between the legal-rational order and developing societies, especially Africa by lumping all types of social relationships, ranging from kinship to various voluntary forms of association.

It is instrumental to note that both theories can help in understanding corruption in developing countries and the effect it has on sustainable development. Thus, both theories are adopted in this study. Huntington's argument is manifest in many developing societies. Many smugglers around Nigerian border and neighboring countries of Benin Republic, Niger, Chad and Cameroon are benefiting from this 'short cut' procedure to import or export goods in connivance with "bad eggs" among law enforcement agents working on the border. Transnational companies are also benefiting from corruption by giving bribe or 'commission', in Smith's (2007) sense of the word to some Nigerian law enforcement agents and get contract from State's executives in exchange for an agreed upon kickback. It is therefore obvious that corruption is benefitted by some few people in Nigeria, but it has been established that corruption majority of the Nigerian citizens are victimised. Yet, Mukhtar & Dangiwa (2017) concluded that the immediate and long term implication of corruption on the sustainability of any society is negative.

Implications of Corruption on Sustainable Development

Corruption is a cankerworm and it is agreed to constitute one of the greatest threats to social, economic and political developments of any nation that condones it (Mohammed, 2013; Mukhtar, 2015). It is obvious therefore that corruption is a threat to sustainable development, because the United Nations' Sustainable Development Goals (SDGs) which was ratified in 2015 identified "Industry, Innovation and Infrastructure" as its Goal 9 (UN-DESA, 2015), knowing fully well that corruption inhibits industriousness and channels the public budget meant for infrastructural development to the personal accounts of sleaze officials. According to International Institute for Sustainable Development (2015), the idea of SDGs has started since the second half of the 20th Century. It should be recalled that World Commission on Environment and Development (Brundtland Commission) published its report in 1987 and it presented the new concept of sustainable development. The concept has become one of the most successful approaches to be introduced in many years and it helped to shape the international agenda and the international community's attitude towards economic, social and environmental development.

UNODC (2018) reported that the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) are attempt to build a better future for humanity. Among other goals, SDGs aim to end poverty, hunger, ensure well-being of all people, promote quality education and health care, protect the global earth planet and advancing prosperity for the global community in general. Clearly, the 2030 Agenda recognises that the rule of law and development are interrelated are mutually reinforcing. Promoting peaceful, inclusive societies for sustainable development, access to justice for all as well as effective, accountable and inclusive institutions is necessary for the achievement of each of the 17 SDGs. Thus, if countries around the world invest increasing efforts as expected till the 2030, the crucial importance of anti-corruption on sustainable development will be appreciated.

Before the launching of Sustainable Development Goals (SDGs) in 2015, corruption has hindered the global efforts to achieve the internationally agreed upon Millennium Development Goals (MDGs). The 2005 World Summit emphasised the need for solid democratic institutions responsive to the needs of people and the need to improve the efficiency, transparency, and

accountability of domestic administration and public spending and the rule of law, to ensure full respect for human rights, including the right to development, and to eradicate corruption and build sound economic and social institutions (UNODC, 2012).

The MDGs further recognised that fighting corruption at all levels is a priority and that corruption is a serious barrier to effective resource mobilisation and allocation, while diverting resources away from activities that are vital for poverty eradication, and economic and sustainable development (UNODC, 2012). Yet, corruption has continued to undermine the democratisation process and the rule of law of the developing countries. In Nigeria in particular, corruption led to human rights violations, distorted markets, eroded quality of life and allowed organised crime, terrorism and other threats to human security to thrive in especially the developing world. This is not a coincidence because if corruption permeates the political, economic and social spheres of a country, the stability and security of the country and of the international community are threatened and the prospects for development and prosperity of that particular country other neighbouring states is at stake. Evidence also shows that corruption hurts poor people disproportionately and is a dominant factor driving developing countries towards state failure.

Policy Implications and Recommendations

As both a morally and legally condemnable act, corruption is treated in many jurisdictions and within many crime control agendas as a unique problem demanding unique solutions. Only through this approach can the challenges it poses to good governance or public probity be addressed. In view of this, a multi-agency effort is needed to tackle corruption. Indeed, international and local agencies like the United Nations Office on Drug and Crimes (UNODC), Organisation of Economic Co-operation and Development (OECD), Transparency International, Economic and Financial Crime Commission (EFCC), Independent Corrupt Practices and other related Crimes (ICPC), and Code of Conduct Bureaus (CCB) are recording significant success, but some policy recommendations can enhance a better anti-corruption crusade among developing countries and around the world at large.

Firstly, multi-agency approach should be adopted to engineer the collaboration of the public, the local and international authorities as well as private and public sectors. Findlay (2014: 185) suggested that the key factors on which control should include the recognition of a cultural representation of corruption, community-centred corruption and regulation, politics of development which foster corruption, post-colonial political processes (because they foster dependency and in uences promoting corruption). Findlay (2014) recommends the checkmating of commercial exploitation as a by-product of development; environmental degradation characteristic of development and colonial imposition of economic modelling in which universalised corruption de nitions victimise developing economies, such as Nigeria.

At organisational level, Loughman *et al.* (2012) recommended proactive measures, anti-corruption policy, communication and training, anti-corruption financial controls. They added that companies should focus on high-corruption-risk areas such as: bank accounts; petty cash; procurement and contracting; consultants, agents, and other high-risk intermediaries; customs and cross-border shipping; gifts, meals, and entertainment of customers and government of cials; charitable giving and offset commitments.

In public agencies, Findlay (2014) recognised that policies and procedures should establish an overall tone for an organisation and impact the day-to-day operations of staffs and clients. Adopting a code of conduct, formalising policies and procedures, widely disseminating these policies, conducting awareness training, and establishing the overall internal control systems and the controls focused on bribery and corruption are key elements to successful tone setting.

A company sets the overall tone through broad policies such as a code of conduct, which should set forth the business rules of the organisation, and it can provide a framework to guide the response of the organisation in the challenging and sometimes difficult choices that are presented to members of the organisation. While the code of conduct is a broad policy that helps focus an organisation's behavior, to address bribery and corruption it is necessary to have more detailed policies and procedures such as the anti-corruption policy that address the specific risks and are widely disseminated to the employees who also receive training on the key policies. Finally, Loughman *et al.* (2012) intimated us that heightened controls should be put in place in high-risk locations to mitigate the risk of an improper payment, corruption risk assessment, monitoring, and due diligence have to be inculcated by the authority.

Conclusion

The article investigated the implications of corruption on sustainable development in developing countries, with particular emphasis on Nigeria. In conclusion, corruption is a global problem and permeates the political, economic and social spheres of developing countries more. The paper also argued that the journey to sustainable development is difficult if corruption is condoned in developing countries of Africa, Asia and Latin America. This is because corruption will continue to sabotage any effort at ending poverty and hunger, promoting people's well-being, provision of quality education and health care, as well protection of the global earth for the prosperity of global community. As evident in Nigeria, corruption undermines the democratisation process and the rule of law, human rights violations, distortion of markets, perverts the quality of life as organised crimes, terrorism and other security challenges continue to thrive.

The article acknowledges the effort of both international and local agencies meant for fighting corruption, such as the United Nations Office on Drug and Crimes (UNODC), Organisation of Economic Co-operation and Development (OECD), Transparency International, Economic and Financial Crime Commission (EFCC), and Independent Corrupt Practices and other related Crimes (ICPC), and Code of Conduct Bureaus (CCB) in Nigeria for instance. But more multi-agency measures should be put in place to incorporate the public, the local and international authorities as well as private and public sectors.

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CHALLENGES OF KISWAHILI AS A LINGUA FRANCA IN EAST AFRICAN COMMUNITY

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ABSTRACT

Kiswahili is a language of communication for East Africa and it can even be the language of communication for Africa as whole. However, it faces various challenges to become a language of communication for everyone in East African Community. The study argues that Kiswahili, with no necessities, is the language of communication for the Eastern part of Africa and more specific for East African community. The study explored the constraints that Kiswahili faces in the process of becoming the lingua franca. The study covered the East African Community as a community that has made Kiswahili a language of communication with a lot of debates on making it the official language of the community. The study adopted an explorative research design where qualitative data were used. The data were collected from secondary documentation and interview retrieved from posted video on YouTube by Mlimani Television.

It was revealed that Kiswahili faces different challenges namely: its traditional origin, colonial languages legacy, official recognition among member countries, local languages and new emerging languages, educational challenges, lack of vocabularies for other languages users, and financial challenges. The study concluded that challenges that face Kiswahili to become a lingua franca for the community are many and need practical consideration to be overcome. Therefore, the study suggested the strengthening of East African Community Kiswahili Commission. To strengthen this commission may be done by extending its mission to search for new words from local languages and incorporate them in Kiswahili as a way of enriching the language. It also suggested that member countries should recognize Kiswahili as an official language and finance some projects that target the promotion of Kiswahili so that citizens can like and use it. Then for the sake of making Kiswahili alive, the study recommended the scholars of Kiswahili to do researches and produce academic works written in Kiswahili.

Keywords: Regional integration, lingua franca, East African Community, and Kiswahili

INTRODUCTION

Effective communication is vital, and the need for it has never been more emphasized than in our globalized world (Dombi 2011). The effective communication can only be achieved when the interlocutors share the language in which they are communicating or when one of them can afford an interpreter. Hence the cost of interpretation and translation is seemingly to be high and not everyone can afford these later services, it is therefore advised for interlocutors to share the language in which they want to communicate through. That is why the term “common language” comes in.

UNESCO (1953, p. 46) defines lingua franca as: "A language which is used habitually by people whose mother tongues are different in order to facilitate communication between them." But Samarin (1987) sees this definition not to be enough. For him some additional elements must be included in the definition of the term lingua franca. Such elements are like: lingua franca to be a mixed languages. He also added the element of lingua franca to be used for commercial purposes. Due to that fact all trade languages are therefore lingua franca. He gave examples of Yoruba, Hausa, Kiswahili, and others in Africa. But all in all, a lingua franca must

be a language of contact which facilitates communication where in some cases it becomes the language of common.

Crystal (1997, p. 67) noted that the fundamental value of a common language is to present its speakers with exceptional opportunities for successful communication. This is where Kanana (2013, p. 6) emphasized that the adoption of ex-colonial masters' languages usage in Africa hinder the process of successful communication and development hence the great number of people who are involved in that development speak their indigenous languages. He added that the common language is the key to the development of nation or nations that share that language. Here, it should be noted that the share of that communality is not restricted to elites' class. The communality should be that one of all people, elites and ordinary people because they are all involved in the development of nation or nations.

Kanana (2013, p. 2) continued by saying: "If a common language is not adopted, which in this case would be a common African language serving as lingua franca of that particular nation(s), the transfer of skills, new knowledge and other vital information desired to effect changes cannot be delivered to the target group at both the regional and national levels to mobilize the masses for the development endeavor."

At the continental level, the idea of adopting one lingua franca seems to be a challenge since the continent counts itself more than 6000 indigenous languages. The situation becomes more complicated through the fear of losing linguistic identity for those whom their language will not be considered. At the regional level, all regions of Africa fall in the understanding of the mother body of governing except the East African region that has stepped forward to adopt one African language as a lingua franca while in the process of becoming official language among its official languages. Such languages would be English and Kiswahili. To clarify this, the East Africa region which is mentioned here refers to the East African Community as one of eight regional economic communities recognized by the African Union.

When it comes to Kiswahili, as an African language, it is believed that Kiswahili is the lingua franca of the eastern part of Africa. Okombo (2017, p. 2) argued that Kiswahili advocates and scholars have been describing Kiswahili as the language of communication in Tanzania and Kenya especially in the East of Africa and coastal part of Africa. For Mulokozi (cited in Okombo, 2017, p.2) Kiswahili gained the status of being lingua franca of the East Africa due to its fast spread that was accelerated by the maritime trade; the caravan trade into the interior; the rise of Zanzibar as East Africa's commercial capital; the Bantu cultural complex, with its affinity to the Swahili complex, and its cultural and political tolerance; the relative cultural and linguistic homogeneity of the Swahili communities; the factor of Islam; colonial language policy, especially by the Germans in Tanzania; Christian missionary activity, including alphabetization, book printing and publishing; mass media; cultural activities such as music, games, sports and ceremonies; economic and social change, including urbanization and new infrastructure; national politics; the school system. All these factors among many others caused the East African Community to promote Kiswahili to the official status of being lingua franca of the region.

1. Literature review

In a globalized manner, Mazrui discussed the role and prospects of Kiswahili where he argues that the development and expansion of Kiswahili as a national and international language has usually been dictated by demand, both economic and social. He continued to argue that as long as such a demand exists, Kiswahili would continue to develop and expand. In this process, he also discussed the obstacles from both within and without. From within, the triumph of Kiswahili may arouse narrow nationalism among certain groups or nations, and these could be

manipulated by unscrupulous politicians to hamper the adoption of Kiswahili as a national or pan-African language in some of the countries. Within the Swahili communities also, there might arise similar chauvinistic sentiments seeking to re-confine Kiswahili to its “original” coastal Islamic shell.

Such sentiments are already in evidence, but being a historical, will probably not have much impact. However, if they were to succeed, they could trigger a negative reaction from the millions of those who are abandoning their languages in favor of Kiswahili.

Despite the fact that Mzrui discussed the development of Kiswahili as national, regional and international language, Moshi (2006, p. 166) put a very critical attention to the development of any language for making it a global language. Moshi said that the development of any language should be the development that tends to global usage rather than the one of ideological tool. He stated that Global usage of a language enhances global understanding. However, when it is used for ideological purposes its function assumes an imposing and threatening value to the culture of other group of speakers. A shared language should be a bridge between cultures, a bridge that connects speakers and allows people to share cultural values, diverse views and knowledge, and promotes a global understanding and a polycentric society. If the ideology behind the spread of a language is to demonstrate power (military or economic), or to secure a competitive edge, or to manipulate a system at the expense of the less politically and economically powerful, then the global function of that language is defunct and the possibility to be globally acceptable is lessened. It is obvious that if a language is spread for the ideology of dominating, it will not accept the adoption or combination of other language roots of words for making it inclusive and popular.

In comparing Kiswahili language to English language use in the East Africa, Mazrui & Mazrui (1998) argued that Kiswahili and English are the most influential trans-ethnic languages in East Africa though English can't be related to any ethnic group in East Africa. They proceed to argue that the two languages are used in many activities ranging from sacred to secular. Kiswahili is a symbol of identity and heritage to most East Africans. To large extent, it symbolizes cultural liberation from the Western World (Ngugi 1993) and a means through which they can engage themselves in the processes of globalization with the outside world.

In his journal article entitled “The Role of Kiswahili in the Integration of East Africa”, John Habwe (2009, p. 2-11) discussed the role of Kiswahili in different sectors of life in the three countries of East Africa that are considered as the cofounders of the East African cooperation. He discussed such role in music, literature, trade, politic, cultural, religion media, and education sectors. Then after, he tried to discuss a little bit about the external and internal challenges faced by Kiswahili language. The author proposes that Kiswahili should be considered as a strong cord to the successful integration in East Africa otherwise the integration would be a mirage. Another solution he proposed is that one of having a political will and financing projects that are aimed at developing Kiswahili language against colonial and other global language.

On the other hand, Nick Gaw (2008) conducted a study focusing on linguistic identity in the entitled study “*We Have a Language Problem Here: Linguistic Identity in East Africa*”. Gaw identifies East Africa as a region where the identity based on language is dominant although the study only focused on two Countries _ Kenya and Tanzania. By using interviews, observation, and analysis of secondary data, the outcomes of the study were to just problematize the issue of linguistic identity in East Africa. The study found out that the loan words of Kiswahili from English and Arab is the key source to the problem of linguistic identity though the all interviewees, excluding one foreign interviewee, he interviewed confirmed him of their fluency in Kiswahili.

From the re-establishment of East African Community, article 119 (d) of the East African Community establishment treaty tells us that state partners agreed to develop and promote Kiswahili as a lingua franca for the region (East African Community [EAC], 1999, p. 93). To this effect, the protocol on the establishment of East African Kiswahili Commission whose specific objectives are expressed in article seven in the second paragraph and subparagraphs a and b which say that the objectives are to strengthen national, regional and international communication through the use of Kiswahili in the community and beyond and to develop Kiswahili as a regional language expressing and conveying positive African values with respect to issues of gender equity, human rights and democracy (East African Kiswahili Commission [EAKC], 2007, p.4).

In addition, in July 2002, Kiswahili was declared by African Union to be a working language of the union joining the existing working languages. Following this development, the East African Legislative Assembly (2015) passed a resolution making Kiswahili a second official language of the community to English. The endorsement of Kiswahili as official language in the treaty is not yet though. Of course this can be identified as one of the challenges that Kiswahili is still facing among other challenges.

The literature reveals that Kiswahili is a lingua franca of the East Africa Community. However, only Mazrui and Moshi have tried to talk about the challenges that can hinder Kiswahili to become the language of communication in the east African community while others have only showed the strength of Kiswahili as a lingua franca. Therefore, this study wants to explore more about challenges that were not deeply discussed so that they can also be addressed by the community through its commission on Kiswahili promotion and to, finally, propose possible solutions to those challenges and open gates for further researches.

2. Methodology and materials

The study adopted the explorative research design as it dealt with already existing data. The study used the content analysis as of analyzing data that were collected through the use secondary data. Such data were extracted from published, online journal, and unpublished documents. The study also analyzed video of interviews given to scholars of Kiswahili. Those video were retrieved from YouTube channel.

3. Presentation and discussion of results

Since the study uses qualitative data, it is for that reason that the researcher presents results together with the discussion. The researcher thinks that the strategy will help him and reader to easily get the analysis. Results and discussion are done in the respective different domains of challenges that Kiswahili faces. The researcher believes that discussing challenges separately will help those who are in charge of addressing such challenges to be able to address them properly also.

3.1. Traditional challenges

Notwithstanding Kiswahili enjoys the privileges of being one of African languages which is widely spoken in Africa and very widely when it comes to eastern region of Africa where Kiswahili predominates (see appendix 1), it continues to face two kind of challenges related to its traditional origin and challenges related to modernity. Historically, Kiswahili is viewed as the language brought by Arab traders Muslims on the east coastal zone of Africa. Contrary, by the time those traders were arriving at the coastal area; they found indigenous people who were speaking their own language including Comorian, Pokomo, Mijikenda, and Swahili itself which made up Sabaki (Thomas J. Hinnebusch, 1996). That is why he does not support the idea of Ali Amin Mazrui and Ibrahim Noor Shariff (1994), of which they said Kiswahili almost originated from Arab. This statement of Mazrui and Shariff makes people to believe that Kiswahili is a

Muslim and Arabic language and they eventually end up by not liking it. For Hinnebusch (1996, p. 76), to communicate effectively, there was a kind of mixture of languages.

It is said that indigenous languages dominated the mixture whereas the Arabic language contributed less than or equal to forty percent of all words composing the mixture which means language of coastal people. And Swahili languages¹ contributed a lot in this kind of mixture (see figure 1). It is of course from this argument that the study identifies all these arguments as a big challenge for Kiswahili to become the language of communication for East African Community. The study argues that because some people identify Kiswahili as a foreign language whose objective is to dominate their local languages. But if researchers can search and shed light on the real origin of Kiswahili and show people that Kiswahili is originally from indigenous African languages from the coastal, people will change their mind and support the spread of it.

Figure 1. Sabaki Internal Averages

Sabaki Internal Averages	Percentage of words contribution
Comorian	81%
Mijikenda	73%
Pokomo	73%
Swahili	74%

Source: Adapted by the author from Hinnebusch (1996, p. 76)

According to figure 1, Sabaki languages also contributed to the formulation of Kiswahili of today. It shows that except Comorian that contributed a lot in the mixture that gave Kiswahili, other languages contributed around seventy percent.

3.2. Colonial legacy challenge

Kiswahili faces the challenges of competing with colonial languages that are not only spoken in Tanzania, Kenya, and Uganda _as confounders of EAC but also in Burundi, Rwanda, and South Sudan. It is true that Kiswahili only competes with English and French in all countries but it also has a competition of other local languages. The serious threat that Mazrui (1998) saw against the development of Kiswahili is that of foreign languages, especially Arabic, English and French and Chinese among others. He also added that it might be harder for Kiswahili to win this fight in short term mainly because the ruling elite cliques that are mesmerized by things of foreign. Mazrui proposed what to do for Kiswahili to win the situation. Such actions are like: developing the language actively and quickly in the areas of science and technology, developing new teaching and research programs that take into consideration the current global trends and needs especially in the area of ICT, developing new up to date teaching and reference materials including the electronic ones, developing Kiswahili based computer programs, translating all relevant up to date information in various field available in foreign languages, and training of human resources grounded in what discussed above.

3.3. Official recognition challenge

Till today Kiswahili still faces some challenges relating to the modernity and current development. Some of it is that Kiswahili being the official language of the east Africa community comprising six member states, two countries _Kenya and Tanzania_ recognize it as national language plus Uganda whose constitution states it but no implementation. Then only three countries _Kenya, Rwanda and Tanzania _ recognize it as official language. Habwe (2009:7) reported that:

¹ Swahili Languages is used to mean the Sabaki languages that were being used in Coastal region of Africa.

“Although Kiswahili serves a vital role in the East African integration, it faces a number of challenges as a language. It is interesting to note that one of the East African countries, Tanzania, has given Kiswahili more social-political good will. Explicit policies have been articulated and to a reasonable extent implemented through the use of this language. The Chama Cha Mapinduzi (CCM) which is the dominant political party has supported the growth and spread of Kiswahili by forming institutions for its growth and spread like Baraza la Kiswahili la Taifa (National Kiswahili Council). However, with Tanzania embracing capitalism and the challenges of globalization, there is inclination towards learning English which, it is believed, would ensure jobs for their children both at local and international levels.”

Other countries like Uganda recognizes Kiswahili as the second official language to be used as the parliament may by law provide (Ugandan Constitution, 2006, p. 2). This is provided in chapter two, article six within its second line. This means that Kiswahili is given a half official status of being a second official language after English. But despite this Kiswahili is being taught in primary Ugandan schools as a subject.

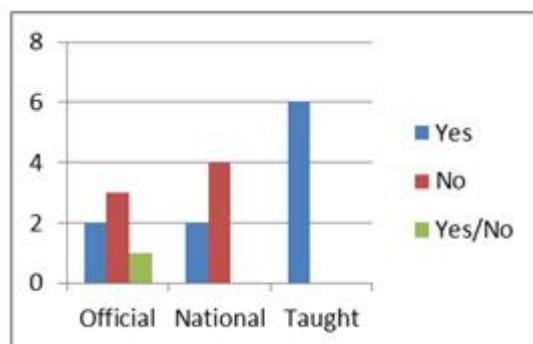
In South Sudan republic, the constitution does not (South Sudan Constitution, 2011, p. 3) recognize Kiswahili at any status though the constitution was drafted before it entered the Community. Hopefully, after entering the community, South Sudan requested teachers from Tanzania to teach Kiswahili in schools (Ismail Akwei on Africanews, 2017) before being given any official status.

For Burundi, Kiswahili is not given any official recognition in the national constitution of the country. but there might be a chance that Kiswahili can be given some status since the constitution stipulates that the official language are Kirundi and other languages that can be determined by the law (article 5) of the constitution (The Republic of Burundi, 2005). Being a member of East African Community and having Kiswahili being taught primary and secondary schools might be the pushing factors for the government of Burundi to recognize Kiswahili at certain official status.

It is obvious that if state members of the East African Community do not recognize Kiswahili at any official status, it is going to be difficult for other community actors and even citizens to recognize it as a language of communication for the community. In some case, Kiswahili might become language of communication through the use of it by the population but there is a need of official mobilization and that mobilization is through the official recognition that can be given to Kiswahili by member countries of the community. If this is not done, people will not have any interest in learning and using Kiswahili.

Figure 1 tries to show how far member countries of East African Community have tried to officially recognize Kiswahili as of course the language of communication the community. The figure shows that only two countries have given Kiswahili the official status of being their national or official language among other official languages that they might have.

Figure 2: Constitutional status of Kiswahili in Six member countries of East African Community



Source: Author 2018

*Yes/No: this is used in the graph to mean that Kiswahili is in half recognized as official language where it is recognized as second language when it is decided.

One country has given a half official recognition of Kiswahili to be a second official language which has also to be decided by the parliament. Three countries out of six countries have not decided yet Kiswahili to be official language while four countries have not also decided yet Kiswahili to be national language which is to some extent impossible depending on the definition of “national language”². Having such number of countries that have not yet given any official status to Kiswahili is a challenge to Kiswahili. However, it can be said that there is hope that Kiswahili will sometime get official status in countries because Kiswahili is being taught in schools as the figure shows. And it should be mentioned that teaching is the starting point.

3.4. Local languages and new emerging languages

Again, Kiswahili faces challenges of ethnic languages in different countries which are members of the regional community. Habwe (2009, p. 8) said: “another major challenge is Sheng’”. This kind of communication medium presents a big challenge to Kiswahili especially in Kenya. As it spreads through the country, as an informal language of the youth, the latter fail to embrace Kiswahili effectively. This means that the allegiance to Kiswahili is even more challenged amongst the youth.” In this case Habwe was emphasizing what Abdulaziz and Osinde (1997 in Habwe 2009, p. 8) stated by saying that Sheng was rapidly spreading in schools and completing the code that is shifting situation that was already existing in Kenya. The influence of Sheng has even permeated parliament, hospitals, churches, banking systems, among others. With more and more institutions that used to oppose Sheng’ beginning to be gullible, the threat of Sheng’ in Kenya is now not only felt in Kiswahili but also in English language as Habwe (2009, p. 8) continued to state.

In Uganda, Uganda has had a perennial challenge to Kiswahili largely emanating from the Baganda who resist the language as foreign of their own Luganda. However, with the increasing East African co-operation, the challenge is likely to be played down in favor of wider co-operation hence more embracing of Kiswahili as the lingua franca.

3.5. Educational challenge

Mazrui and Mazrui (1995, p. 25) noted that the colonial language and educational policy in Africa, fell far short of giving Kiswahili a chance to evolve and develop into a language of scientific discourse and analysis.” In addition to this Kitula (1999, p. 1) noted that deficiency of African languages such as Swahili in scientific and technical registers is both artificial and

² National Language: a language which is widely spoken by a great number or all citizens of the country.

historically understandable. However, Kitula (1999, p. 1) presented problems that Kiswahili faces including the lack of Swahili technical terminology which is also felt by other professional language users apart from lecturers or teachers. This scarcity of technical words might be the result of continuing holding English language as a medium of instruction in education system of most East African Countries including Tanzania which believed to be the one to strengthen the use of Kiswahili as a lingua franca of East Africa. This fact is being stated by Mari C. Yogi (2017, p. 4) where he said:

“The advancement of English has placed a strain on students especially during the transition from primary to secondary education. Kiswahili still serves as the mother tongue language but is being dominated by English in the education sector and oftentimes placing a distinct separation between the upper and lower class. English is used in academic and professional settings but only a small fraction of the Tanzanian’s population is conversational. English is used in official government documents, newspapers, on the radio, and creative literature. Its presence is significant and its inception dates back to colonization under British control. Over time, English became a status representation for one’s level of education and social standing.”

It is obvious that other countries may get the motivation of advancing the use of Kiswahili from the commitment of Tanzania in promoting Kiswahili. The study states with few doubt that the situation in Tanzania about Kiswahili seems to be beyond in other countries comprising EAC and even Eastern part of Africa. Hence Tanzania does not put much emphasis on its use; it is more likely to be a reluctant journey for other countries to promote Kiswahili in their daily activities.

As a typical example to emphasize this, Akinyi and Matu (2011) talked about the challenges of Kiswahili in the use of Information Communication and Technology. In their study which was done in Kenya on how Kiswahili teachers do their work, they found out that these teachers do not have enough written materials in Kiswahili from internet that they can use while preparing contents. They also noted that Kiswahili has few equivalent vocabularies for some ICT vocabularies. Kiswahili teachers told the researchers that English dominates Kiswahili when it comes to computers programs and languages of computers. Nobody can neglect the role of ICT in disseminating knowledge and even in teaching new language.

3.6. Lack of vocabularies

Lack of Vocabularies to use while speaking in Kiswahili is another challenge that faces Kiswahili in East Africa Community. This happens because of multiplicity of languages particularly colonial languages. In the interview Professor Malonga Pacifique who is the Sensitizing Secretary of East African Community Kiswahili Commission³ said: *"If you are going to Bujumbura, going to Kigali, ... someone will tell you this “kapetit”⁴ has “maproblem”⁵ and when you tell someone this “kapetit” has a lot of “maproblem” and you are from Bujumbura, Kigali or Goma and you are talking to someone from one of those places, people will understand you. For them, the right vocabulary would be this “petit” has “maproblem”.*

³ East African Community Kiswahili Commission has the promotion and development of the use of Kiswahili as a lingua franca in East Africa Community as its objectives.

⁴ Kapetit is used by the interviewer in a pejorative sense to mean a little man which normally means a little boy.

⁵ Maproblem is a substantive word for many problems used often by people from East of DRC while speaking Kiswahili.

....” He continued: “for Kenyans you will hear one telling another one “mitala”⁶ another will tell you “mitaala” or “mitalaa”⁷.....”⁸ (My translation from Kiswahili to English).

Following what is expressed in the interview, it can be said Kiswahili faces a challenge of missing vocabularies for those who are really familiar with it but familiar with other languages like French. This kind of problem, considering the first part of the interview, can be easily recognized for people who usually use French and it rarely for English speaking since Kiswahili normally borrow some words from English which is not the same case for French. Then in second part of interview, the interviewer meant people will use different tone unintentionally to mean the same while different tone bring difference in meaning of words.

3.7. Financial challenge

It is with confidence that anyone can say that projects run very well when they are financially backed. On the side of metropolitan languages, Habwe (2009, p.8) said English, German, French and other major languages in the East African Region are receiving funding from home countries. This funding factor has provided an extra incentive for people to learn these languages. Whereas it is not correct to argue that Kiswahili needs to be funded from outside of East Africa, the absence of even local funding for Kiswahili in most spheres is a big challenge to its growth as an African language.

To this, Dzahene-Quarshie (2013, p. 78), said that institutions in Tanzania like University of Dar es Salam are not able to effectively support programs of studying Kiswahili whether within the EAC community or without of it. she gave an example of Ghana experience where the University had a an Abroad program of teaching and learning Kiswahili but the program failed because students were not interested because they were the full cost of the study. To support this she gave numbers of students who were enrolling in the program from its start until it became weak. The breakdown of the average of students was as follows: first year (155); second year (24); third year (17) and final year (10).

In addition, institutions created by the East African Community to promote the use of Kiswahili still face the challenge of funds. This challenge has blocked the commission from implementing some of its projects that intended to promote Kiswahili as a lingua franca of the region. This problem of budget allocation was raised during the spot-assessment by the East African Legislative Assembly by the Executive Secretary of the commission by saying that they had been trying to play their part well despite the financial challenges that the commission faces (Retrieved from: www.trademarka.com).

These are the witnesses about the financial challenges of Kiswahili which must be addressed by member states of the EAC. This means that Kiswahili must be first of all be funded by the community in which it is considered as the language of communication. And to achieve this there is a need for financial funding.

4. Conclusion

In this paper, the discussion was merely focused on the challenges that face Kiswahili which is considered as a lingua franca of not only East African Community but also the Eastern part of

⁶ Mitala: it has a meaning of polygamy.

⁷ Mitalaa or mitaala mean curricula in plural while in singular it is mtalaa or mtaala.

⁸ Interview of Mlamani TV with Professa Malonga Pacifique, Sensitizing Secretary of East African Community Kiswahili Commission, Dar es Salam, 21 April 2017. Retrieved from <https://www.youtube.com/watch?v=0e1A5aEpYQQ> on 9 May 2018.

Africa since it is spoken in other countries than countries of EAC. It has been found that despite the efforts that have been made by both EAC member countries and Kiswahili scholars and even the East African Community for Kiswahili Commission, there are still constraints for Kiswahili to become a lingua franca for East African Community fully.

As it was already mentioned above, challenges that face Kiswahili as a lingua franca of East African Community include linguistic colonial legacy, unproved theories about the origin of Kiswahili, reluctance of state members in recognizing Kiswahili as official language in their respective constitutions, local and other emerging languages, and lack of new vocabularies. All these challenge can be attributed to lack of financial support from all stakeholders for the promotion of Kiswahili.

The study would like to call upon the attention of researchers to continue writing on the real origin of Kiswahili. For Kiswahili to overcome colonial languages there is a need for everyone to have the role. According to Moshi (2006, p. 175), scholars should not take part in undermining the power of Kiswahili. When a language is trivialized, its power is also diminished. The paper would also like to propose EAC member countries to recognize Kiswahili and give it official status so as people will have a motivational spirit to use Kiswahili. It is also important to encourage leaders and the citizens of East Africa not to succumb to the pressure to de-emphasize Kiswahili by promoting English medium schools (Moshi, 2006, p. 174). Also the mission of EAC Kiswahili commission should also be extended to searching for new word roots from local languages to include in Kiswahili. This will solve the problem of local languages inclusion. This can also be another way of enriching the vocabularies of the language.

Appendix

Appendix 1: Countries that speak Kiswahili in East Africa

Picture 1



Source: <https://www.google.cm/search?q=swahili+map&rlz>

The yellowish part shows where Kiswahili is spoken.

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A GEOGRAPHICAL ANALYSIS OF THE EFFECTIVENESS OF DRAINAGE NETWORK ON FLOOD IN ANYIGBA, KOGI STATE, NIGERIA

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ABSTRACT

The study examined the effectiveness of drainage networks on floods in Anyigba, Kogi state, Nigeria. The specific objectives included; to examine the frequency and intensity of flood, evaluate the geometry of selected drainage channels, determine the relationship between drainage width and depths on floods and determine the effect of flooding on the people within the study area. The dumping of wastes in the drainage channels has led to the rapid increase in flood incidences in Anyigba as the available drainage channels cannot contend with the volume of storm water. In view of this, the study established gauging stations for the measurement of drainage run off using measuring tape and copies of questionnaire were administered to 400 households purposively to the four areas (Ogana-aji, Abuja area, Eti Aja area and kaduna-efekpe area), the results from the findings were subjected to statistical analysis using SPSS version 20.00 for descriptive and inferential statistics tools to give an assessment and understanding of the variables. The results from the findings revealed that 74.1% of the respondents agreed that drainage network in the study area are inadequate, 22.9% agreed that government negligence is the major cause of inadequate drainage in the study area. The study further revealed that 32.7% agreed that erosional activities cause distortion in the beauty of the environment while 51% of the respondents are of the view that drainage system in the study area are not well designed. The study concluded that building on storm water drainages, poor physical planning, inadequate drainage channels, heavy rainfall, dumping of waste on drainage networks and nature of the terrain are the major factors responsible for poor drainage network in the study area. The study therefore recommended that proper planning of the area is needed to avoid building on drainage channels.

Keywords: Drainage Networks, Drainage Channels, Flood Incidences, Physical Planning and Terrain

INTRODUCTION

Flooding activities especially in developing countries such as Nigeria have caused people to be displaced from their natural harbours, lead to loss of lives and properties worth millions of naira, loss of agricultural lands and product and as result lead to famine and hunger in areas affected. Poor planning by government and policy makers, vulnerability of urban population to floods and storms due to high disregard to developmental plan are most likely the contributory factors of all death, occurring as a result of flooding. Flood usually occur due to heavy rainfall on flat surfaces, reservoir failures and are usually based on factors such as rainfall, topography of the soil, inadequate flood control measures, river overflow, tidal surge and improper planning before building and development on flood plain areas. Major disasters affecting many countries of the world today is due to flooding, which occurs annually especially in most flood plain areas. According to Ifatimehin and Musa (2009) the effects of these floods are always devastating, properties are lost, human and animal lives are endangered too. Other effects like outbreak of diseases such as malaria and cholera also comes to play.

Flooding is a natural disaster that happens due to man-made impact on the Environment. flooding has been identified as a major factor that prevent Nigeria growing population of city

dwellers from escaping poverty and stands in one way of united goals of achieving significant improvement in the lives of urban slum dwellers, Action Aid, (2006) and Ndoma (2006). In most Nigeria cities drainage systems or networks causes a lot of problems over a long period of time and making them obvious or noticeably non-functional. It is alarming seriously in events of flood across Africa. Natural disasters may not be controlled by humans but can be managed or reduce their effects by adopting appropriate planning and management system.

As population increases, it brings along with it a lot of developmental challenges such as demographic trends for employment, water supply, shelter and sanitation especially (liquid, electronic and solid waste) (UNCED, 1992). Therefore, urbanization is believed to be connected with level of development in terms of industrialization and economic growth (Tettey, 2005). One major challenge facing Nigeria today is the level of physical planning of infrastructure and its management of her urban areas. Thus, as urbanization gathered pace in most cities in Nigeria, the challenge of infrastructural services and deteriorating urban centers became enormous (Sule 2009) and this is in line with Arimah (2002), where he noted that poor housing conditions, poor drainage network, inadequate infrastructural development, squatter settlement are issues that always arise from urbanization.

Flooding has been a major challenge to residents of Anyigba due to heavy rainfall, the nature of topography as well as the poor drainage system within the community. Therefore, appropriate and adequate knowledge of drainage network within the study area will be key to maintain a viable economic and development growth as well as healthy living.

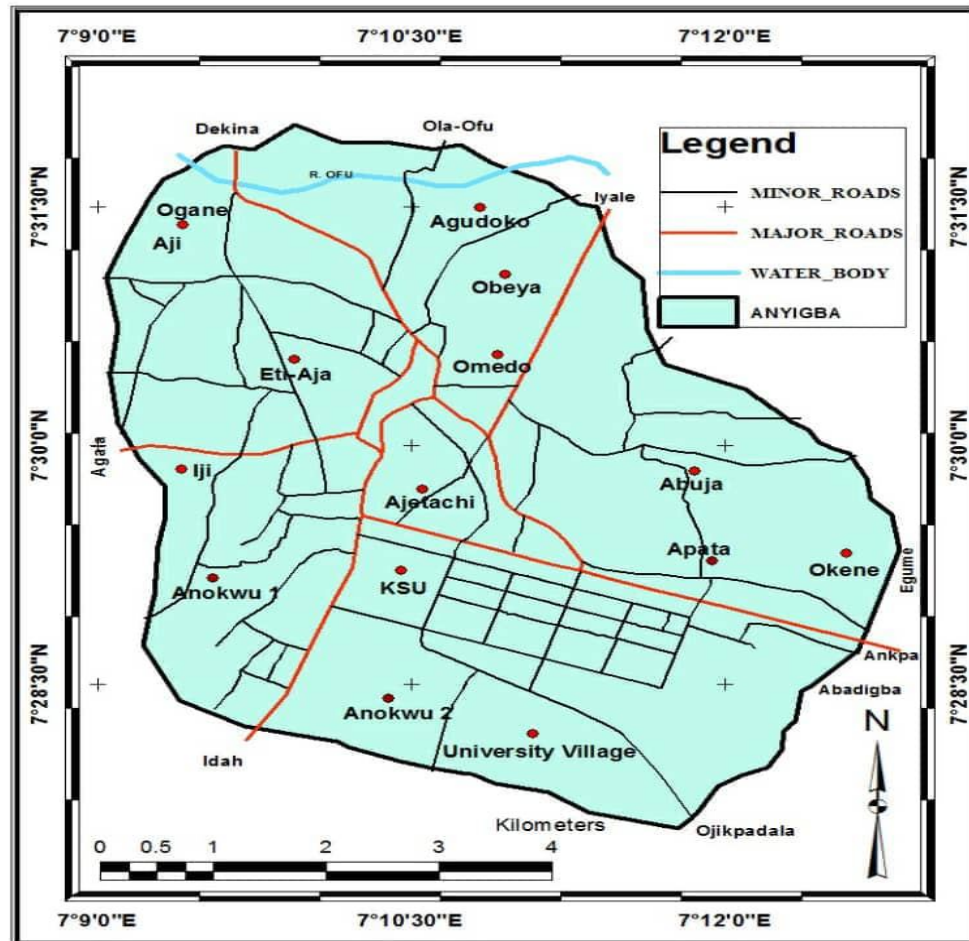
A lot studies have been carried out on flooding and its adverse effects Brooks, for example (2003), Arimah 2002, Tettey (2005), Aderamo (2008), Afangideh, Ekpe and Offiong (2012) all examined the implication of changing rainfall pattern on building laws and causes of flood incidence. However, none of these studies measured the dimension of drainages and their role in flood events. It is on this note that the study seeks to determine the frequency and intensity of floods, evaluate the geometry of selected drainage, determine the effects of flooding within the study area and the effect of width and depth of drainage on floods within the study area.

STUDY AREA

Anyigba is a town in Dekina Local Government Area of Kogi State, Nigeria. The town is located between Latitude $7^{\circ}27' - 7^{\circ}31'N$ and between Longitude $7^{\circ}09' - 7^{\circ}12'E$ (See Figure 1) Anyigba is situated in the east limb of Udi plateau. It has a gently undulating landscape to a flat and minimum rugged landform surface with an average elevation of 380m above sea-level. Anyigba is underlain by sedimentary rocks of upper Cretaceous Age which is of false bedded shale and sandstone, sand, and clays. The whole region consists of deeply weathered regolith which accounts for the great depth of water table (aquifer) which in most cases approaches 204 - 300m (Iji, 2007). The drainage of the area is not very complex. Anyigba does not contain a well-developed valley formation which contributes to the absence of many rivers in the area. The rivers flow from the base of the highlands to the surrounding lowlands. Among the few rivers that are found in the area are Ogane-aji River in the Northern part of the town and Abu-uja Lake at Ojofu covering an area of about 400m² (Iji, 2007). Other rivers around Anyigba area are Imabolo River, Ofu River and Okura River; they are mostly perennial but with a reduction in volume during the dry season (Iji, 2007). Anyigba is located within the tropical area, thus the climate is governed by the processes that controls the tropical climate. However, it can be described as tropical wet and dry (Aw) climate using the Koppen's classification system. The wet season spreads over a minimum of seven months and it extends from late April to October with the dry season spanning from November to March, i.e. an approximate of five months. Rainfall is highly seasonal and the area enjoys double maxima rainfall with July and September

being the rainiest months, characterized with a mid-August break. The mean annual rainfall ranges between 250mm - 1600mm.

Figure 1: Anyigba the Study Area



Source: Department of Geography, Kogi State University Anyigba (2019)

The soil of Anyigba is of the laterite type with lateritic iron pan layer. It is red-yellowish in colour due to excess oxides (sesquioxides) on the surface. The soils are highly weathered with soil texture of medium to coarse type (Iji, 2007). Anyigba is located within the southern guinea savannah and the vegetation can best be described as a tropical woodland savannah. Because of the absence of (continuous) heavy rainfall, Anyigba is dominantly made up of green shrubs, trees and short to tall grasses averaging about 1.6 to 2 meters in height.

METHODOLOGY

A Reconnaissance survey of Anyigba was undertaken to identify areas with poor drainage system, from the survey the study identified areas that are often flooded whenever it rains. The reconnaissance assisted in the determination of suitable location for the establishment of the measurement points. At the end, a distinct area with well-defined boundaries was identified. Therefore, as result of poor drainage system, flooding locations were identified which includes ogane aji, abuja area, kaduna efekpe,eti aja. Questionnaires were administered to residents of

the areas in accordance with the guide outline in the procedure for data collection. Therefore, the data required for this study include; Data on the socioeconomic characteristics of the respondent, data on flood frequency and intensity, Data on drainage characteristic, data on width and depth (by direct measurement), data on the causes of flooding within the area and data on effects of flood on the environment. The data were sourced from both primary and secondary sources. A random sampling technique was used in the administration of questionnaire on household heads per housing units, selected along the streets of the sampled residential districts. Random sampling technique involves the picking of members of a sample at a predetermined regular space/time interval. Apparently, the first element is picked randomly from the first five houses to determine the starting point of questionnaire administration, and others are then picked at regular intervals predetermined by the researcher (every ten houses). This way every relevant household was given a chance of being picked and none repeated. The copies of questionnaire were distributed purposively within the study area and as such Abuja and Eti Aja area was given 105 copies of questionnaire each and Ogane-aji and Kaduna efekpe area was purposively given 95 copies each making a total of 400 copies of questionnaire using Yamane formula of sample size determination. The dimensions of the drainage were measured directly from the field with a measuring steel tape and the volume of flood water was measured using stop watch method (Velocity of flow). Seven areas were purposively sampled. Along a given street, a number of measured points were established along the drainage paths. The values obtained were further subjected to statistical manipulation to determine depth to width ratio.

DISCUSSION OF RESULTS

Frequency and Intensity of Flood within the Study Area

Table 1 shows that out 95% respondents representing ogane-aji, 86% agreed on that they experience flooding in recent times while 9% did not, out of 101% respondents representing Eti-aja, 40% agreed that they experience flooding in recent times while 61% did not, out of 105% respondents representing Abuja area, 52% agreed that they experience flooding in recent times while 53% did not, out of 87% respondents representing kaduna-efekpe, 64% agreed on that they experience flooding in recent times while 23% did not. The findings from the study is in line with Ishaya *et al.*, (2009) where he noted that in many parts of the world, flood seems to be occurring more often and they seem to be increasing in size. Human activities, however, sometimes exacerbate them. The state of the drainage (with regard to the prevalence of flood incidence cannot be over emphasis because of the poor observance of frequent flooding in the area. It was observed that most of the buildings especially the illegal structures are built either on the drainage channels path or too close to the drainage. This is a common feature in almost all the sampled zones. More so, it was observed that during rainfall streets like Ogana-Aji area are often strewn with all kinds of waste including human excreta. The presence of human excreta on streets pose" serious health hazards to the people around these areas.

In general, during heavy rainfall which usually leads to flooding of low land areas because the waste dumped along the drainage channels obstruct the free flow of storm water. The drainage channels cannot therefore accommodate the flow of the fast running storm water hence it spills into streets and houses (Sule, 2009). Flood incidence is further compounded by the fact that most buildings were built right within and in the right of way of storm water as indicated by majority of the respondents who confirmed that building on drainage channels was another factor that often leads to flooding in their neighborhood and others people interviewed attributed flooding to other factor.

The respective views on the quality of the drainages across the sampled areas clearly points to the fact that the drainages are in poor state. Plate 3 is an evidence of what one can easily find in

most of the streets in the sampled area. As the plate indicates, the persistent rain couple with the poor materials and engineering works has made these gutters to look like rabbit holes.

Table 1: Experience of Flooding Recently within the Study Area

	Yes	No	Total
Ogane Aji	86(90.5%)	9(9.5%)	95(100%)
Eti Aja	40(39.6%)	61(60.4%)	101(100.0%)
Abuja Area	52(49.5%)	53(50.5%)	105(100.0%)
Kaduna Efekpe	64(73.6%)	23(26.4%)	87(100.0%)
Total	242(62.4%)	146(37.6%)	388(100.0%)
Chi-Square =66.422 ^a ; df =3; p =.000			

Authors Field Survey (2019)

The findings of this study was earlier corroborated elsewhere by Abaje and Giwa (2007) who in their study reported that the increasing frequency of flood goes beyond heavy rainfall as urbanization rate and poor land use planning are the main precursors to flood episodes in most Nigerian cities

Table 2: Times they experience flooding last year within the study area

	severally	when it rains	uncountable times	many times	Total
ogane aji	17(17.9%)	40(42.1%)	19(20.0%)	19(20.0%)	95(100.0%)
eti aja	16(15.8%)	54(53.5%)	17(16.8%)	14(13.9%)	101(100.0%)
abuja area	28(26.7%)	47(44.8%)	18(17.1%)	12(11.4%)	105(100.0%)
kaduna efekpe	17(19.5%)	39(44.8%)	17(19.5%)	14(16.1%)	87(100.0%)
Total	78(20.1%)	180(46.4%)	71(18.3%)	59(15.2%)	388(100.0%)
Chi-Square =7.983 ^a df=9 p=.536					

Authors Field Survey (2019)

Table 2 shows that out 95 respondents in ogane-aji area, 17% agreed that they experience flooding severally, 40% agreed that they experience flooding when it rains, 19% agreed on uncountable times, and 19% agreed on many times they experience flooding last year. These findings are in line with the work of Taiwo (2008) where they observed that residents of Makurdi were thrown out of their residences and their farmlands left impoverished after two days of heavy down pour of rainfall. It was described as very disastrous, He also reported in this day (August 18) that at least five hundred people were rendered homeless and properties worth several millions of Naira were destroyed when the flood, occasioned by torrential rainfall ravaged Babura, a town in Jigawa State in a period of two days. 101 respondents representing Eti-aja, 16% agreed on that they experience flooding severally, 54% agreed on when it rains, 17% agreed on uncountable times, and 14% agreed on many times. 105 respondents representing Abuja area, 28% agreed on that they experience flooding severally, 47% agreed on when it rains, 18% agreed on uncountable times, and 12% agreed on many times. 87% respondents representing Kaduna-efekpe, 17% agreed on that they experience flooding severally, 39% agreed on when it rains, 17% agreed on uncountable times, and 14% agreed on many times. This shows that majority of the respondents in Abuja area have experienced flooding last year. These respective views point by the respondents to the high incidence of flood in Anyigba can be traced largely to nonconformity to land use

Table 3: Damages Caused by Flooding within the Study Area

	Yes	no	
Ogane Aji	95(100.0%)	0(0.0%)	95(100.0%)
Eti Aja	51(50.5%)	50(49.5%)	101(100.0%)
Abuja Area	64(61.0%)	41(39.0%)	105(100.0%)
Kaduna Efekpe	50(57.5%)	37(42.5%)	87(100.0%)
Total	260(67.0%)	128(33.0%)	388(100.0%)
Chi-Square=64.555 ^a df=3 p= .000			

Source: Authors Survey (2019)

Table 3 shows that out 95 respondents representing ogane-aji, 95% agreed that there are damages caused by flooding in the streets. out of 101 respondents representing Eti-Aja, 51% agreed that there are damages caused by flooding in the streets while 49% did not agree, out of 105 respondents representing Abuja area, 61% agreed that there are damages caused by flooding in the streets while 39% did agree. 101 respondents representing Kaduna Efekpe, 57.5% agreed that there are damages caused by flooding in the streets while 42.5 % are not in agreement. The result from the study is in line with, (Taiwo, 2008). Where he noted that the residents of Makurdi were thrown out of their residences and their farmlands left impoverished after two days of heavy down pour of rainfall. It was described as very disastrous.

Table 4: Effects of Flood on Lives and Properties within the Study Area

	loss of properties	loss of lives and properties	loss of lives	distortion of the beauty of the environment	blockage of road	Total
Ogane Aji	9(9.5%)	50(52.6%)	9(9.5%)	10(10.5%)	17(17.9%)	95(100.0%)
Eti Aja	23(22.8%)	0(0.0%)	1(1.0%)	42(41.6%)	35(34.7%)	101(100.0%)
Abuja Area	24(22.9%)	3(2.9%)	1(1.0%)	47(44.8%)	30(28.6%)	105()
Kaduna Efekpe	21(24.1%)	5(5.7%)	1(1.1%)	28(32.2%)	32(36.8%)	87(100.0%)
Total	77(19.8%)	58(14.9%)	12(3.1%)	127(32.7%)	114(29.4%)	388(100.0%)
Chi-Square=172.227 ^a df=12 p=.000						

Authors Field Survey (2019)

Table 4 further revealed that out of 95 respondents representing Ogane-Aji, 9.5% agreed on that the estimation of the effects of flood on lives and properties are loss of properties, 52.6% agreed on loss of lives and properties, 9.5% agreed on loss of lives, 10.5 % agreed on distortion of the beauty of the environment, 17.5% agreed on blockage of road, 101 respondents representing Eti-Aja, 22.8% agreed on that the estimation of the effects of flood on lives and properties are loss of properties, 1% agreed on loss of lives, 42.6% agreed on distortion of the beauty of the environment, 34.7% agreed on blockage of road, 105 respondents representing Abuja area 24.1% agreed on that the estimation of the effects of flood on lives and properties are loss of properties, 2.9 % agreed on loss of lives and properties, 1% agreed on loss of lives, 44.8% agreed on distortion of the beauty of the environment, 28.6 % agreed on blockage of road, . 101 respondents representing Kaduna Efekpe, 21% agreed on that the estimation of the effects of flood on lives and properties are loss of properties, 5% agreed on loss of lives and properties, 1% agreed on loss of lives, 28% agreed on distortion of the beauty of the environment, 32% agreed on blockage of road. This is in line with Adedeji (2012) where he

observed that similarly that flooding is a phenomenon that sometimes has devastating effects on human livelihoods.

Geometry of Selected Drainage Channels within the Study Area

Table 5 presents the geometry of the drainage channels and runoff estimation in the study area as observed and measured. The drains consist majorly of channels with open trenches, which are rectangular in shape with concrete lining and some without concrete lining and but only a few was covered; however, most of the drainage channels in the interior of the city are left open. It can be seen from table 4.6 that the drainages are characterized by different dimensions. For example, the width of the drainage channels ranges from 2.53-0.3m and the total mean width of the drainage channels is 1.3m. for the depth of the drainage channels, it ranged from 2.0-0.2m with a total mean depth of the measured drainage channels been 1.3m. similarly, the range of runoff 2.0-0.6m.

Table 5: Evaluation of the Geometry in the Study area

Ogane-Agi									
	lat	Minutes	seconds	long	minutes	Seconds	width	Depth	Run off
point 1	7	31	7.5	7	10	19.2	2.5	2.1	2.0
point 2	7	31	7.6	7	10	18.6	0.8	0.7	0.7
point 3	7	31	4.43	7	10	13.1	0.7	0.7	0.6
Eti-Aja									
	lat			long					
point 1	7	30	34.6	7	10	22.55	2.49	2	2
point 2	7	30	36.19	7	10	30.97	2.47	1.9	1.9
point 3	7	30	35	7	10	23.5	2.5	2	2
Kaduna Efekpe									
	lat			long			width	Depth	
point 1	7	29	44.95	7	10	44.34	0.3	0.2	0.2
point 2	7	29	47.75	7	10	44.26	0.3.1	0.3	0.3
point 3	7	29	46.8	7	10	44.2	0.3	0.2	0.2
Abuja Area									
	lat			long			width	Depth	
point 1	7	29	20.63	7	11	16.78	0.7	0.8	0.7
point 2	7	29	26.41	7	11	13.4	0.5	0.6	0.6
point 3	7	29	24.1	7	11	14.7	0.6	0.8	0.8

Source: Authors Survey (2019)

On the relationship existing among the three variables drainage width, depth and runoff volume, it is clear that drainages that are wide tend to contain larger volume of runoff, but this was not consistent across the sampled drainages. Little variations were recorded in some areas. According to plate 1 sediment, stones, pebbles and refuse dumps on water ways may contribute to the shallowness of the drainage and render such drainage ineffective. From the study, it was shown that the drainage dimensions vary from one study zone to another. However, the general

observation is that the width and depth of the gutters in most of the sampled zones are narrow as exemplified by frequency flood episodes. Jimoh (2008) made a similar observation in a study of drainage dimension in Ilorin Nigeria. In the study it was reported about 31.5% of the respondents were of the view that one of the effects of drainage channel problem is the incidence of temporary street flooding. In addition, in a study by Daniel *et.al*, (2012) in Gombe also observed that 42.5% of the respondents agreed that lack of drainage facilities constitutes the major factor that is causing flood in Gombe



Plate 1: Drainage Network in Ogani-aji, Source: Authors Fieldwork (2019)

In the study sites, it was evidenced that the drainages were not wide and deep enough to contend with the high volume of water that pass through them hence the regular incidences of floods.

This was particularly observed in areas like ogana-Aji, Abuja area and Eti Aja where even after days of heavy rainfall stagnant water can still be seen on the area

Environmental State of Drainage Networks on Flood within the Study Area

Table 6 shows that out of 95 respondents representing Ogane-Aji, 9% agreed on that the quality of drainage is very narrow, 9% agreed on not well designed, 0% agreed on not plastered, 19% agreed on highly fractured, 101 respondents representing Eti-Aja, 2% agreed that the quality of drainage is very narrow. 47% agreed on not well designed, 7% agreed on not plastered, 14% agreed on highly fractured, and 9% agreed on not present at all 22% agreed on others. 105 respondents representing Abuja area, 1% agreed that the quality of drainage is very narrow 44% agreed on not well designed, 3% agreed on not plastered, 15% agreed on highly fractured, and 28% agreed on not present at all 14% agreed on others. 87 respondents representing Kaduna Efekpe, 5% agreed on that the quality of drainage is very narrow 40% agreed on not well designed, 2% agreed on not plastered, 25% agreed on highly fractured, and 3% agreed on not present at all 12% agreed on others. This is in line with Arimah (2002), where he noted that poor housing conditions, poor drainage network, inadequate infrastructural development, squatter settlement are issues that always arise from urbanization.

Table 6: Quality of drainage network within the study area

	very narrow	not well designed	not well plastered	highly fractured	not present at all	others(specify)	Total
Ogane aji	9(9.5%)	67(70.5%)	0(0.0%)	19(20.0%)	0(0.0%)	0(0.0%)	95(100.0%)
Eti aja	2(2.0%)	47(46.5%)	7(6.9%)	14(13.9%)	9(8.9%)	22(21.8%)	101(100.0%)
Abuja area	1(1.0%)	44(41.9%)	3(2.9%)	15(14.3%)	28(26.7%)	14(13.3%)	105(100.0%)
Kaduna efekpe	5(5.7%)	40(46.0%)	2(2.3%)	25(28.7%)	3(3.4%)	12(13.8%)	87(100.0%)
	17(4.4%)	198(51.0%)	12(3.1%)	73(18.8%)	40(10.3%)	48(12.4%)	388(100.0%)

Chi-Square=95.207^a df=15 p=.000

Authors Field Survey (2019)

Table 7 shows that out 95 respondents representing ogane-Aji, 9% agreed that they have adequate drainage while 86% did not, out of 101 respondents representing Eti-Aja, 28% agreed that they have adequate drainage while 73% did not, out of 105% respondents representing Abuja area, 40% agreed that they have adequate drainage while 65% did not, out of 87% respondents representing kaduna-efekpe 23% agreed that they have adequate drainage while 64% did not. This is in line with Aderamo (2008) where he observed that poor waste disposal technique, developmental problems, river channels encroachment and cultural belief are major causes of street flooding in most Nigerian cities. In fact, waste management among most residents is rather too poor. Refuse and other wastes are usually dumped into available open spaces, including drainage channels and river plains and valleys. This practice has led to the blockage of the drainage channels at various points.

Table 7 Adequate drainage networks within the study area

			Total
	Yes	no	
Ogane aji	9(9.5%)	86(90.5%)	95(100.0%)
Eti aja	28(27.7%)	73(72.3%)	101(100.0%)
Abuja area	40(38.1%)	65(61.9%)	105(100.0%)
Kaduna Efekpe	23(26.4%)	64(73.6%)	87(100.0%)
	100(25.8%)	288(74.2%)	388(100.0%)

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Chi-Square=21.747^a df=3 p=.000

Source Authors Survey (2019)

Table 8 shows that out of 95 of respondents representing ogane-Aji, 30% agreed that the cause of this inadequate drainage networks is government negligence, 9% agreed that the cause of this inadequate drainage networks is inadequate funding 4% agreed that the cause of this inadequate drainage is low level of technical knowhow 10% agreed that the cause of this inadequate drainage network is poor monitoring and evaluation, and 8% agreed that the cause of this inadequate drainage networks is lack of information and communications on the state of drainage facilities 34% agreed that the cause of this inadequate drainage networks is all of the above. 101 respondents representing Eti-Aja, 27% agreed that the cause of this inadequate drainage networks is government negligence, 8% agreed that the cause of this inadequate drainage networks is inadequate funding, 19% agreed on low level of technical knowhow, 23% agreed on poor monitoring and evaluation, and 12% agreed on lack of information and communications on the state of drainage facilities 12% agreed on all of the above. In general, during heavy rainfall which usually leads to flooding of low land areas because the waste dumped along the drainage channels obstruct the free flow of storm water. The drainage channels cannot therefore accommodate the flow of the fast running storm water hence it spills into streets and houses (Sule, 2009). 105 respondents representing Abuja area, 17% agreed on government negligence 16% agreed on inadequate funding 13% agreed on low level of technical knowhow 15% agreed on poor monitoring and evaluation and 21% agreed on lack of information and communications on the state of drainage facilities 23% agreed on all of the above 87% of respondents representing Kaduna Efekpe, 15% agreed on government negligence 9% agreed on inadequate funding 5% agreed on low level of technical knowhow 15% agreed on poor monitoring and evaluation and 14% agreed on lack of information and communications on the state of drainage facilities 29% agreed on all of the above. This is in line with Sule (2009), where he noted that the major challenge facing Nigeria today is the level of physical planning of infrastructure and its management of her urban areas. Thus, as urbanization gathered pace in most cities in Nigeria, the challenge of infrastructural services and deteriorating urban centers became enormous.

Table 8: Cause of inadequate drainage networks within the study area

	government negligence	inadequate funding	low level of technical knowhow	poor monitoring and evaluation	lack of information and communications on the state of drainage facilities	all of the above	Total
Ogane Aji	30(31.6%)	9(9.5%)	4(4.2%)	10(10.5%)	8(8.4%)	34(35.8%)	95(100.0%)
Eti Aja	27(26.7%)	8(7.9%)	19(18.8%)	23(22.8%)	12(11.9%)	12(11.9%)	101(100.0)
							%
Abuja Area	17(16.2%)	16(15.2%)	13(12.4%)	15(14.3%)	21(20.0%)	23(21.9%)	105(100.0%)
Kaduna Efekpe	15(17.2%)	9(10.3%)	5(5.7%)	15(17.2%)	14(16.1%)	29(33.3%)	87(100.0)
	89(22.9%)	42(10.8%)	41(10.6%)	63(16.2%)	55(14.2%)	98(25.3%)	388(100.0)
Chi-Square=46.504 ^a df=15 p=.000							

Authors Survey (2019)

Table 9 shows that out of 95 of respondents representing Ogane-Aji, 43% agreed on that the main causes of poor drainage systems in streets is poor drainage connectivity, 9% agreed on the drainages are not wide enough 0% agreed on heavy rain and 23% agreed on all of the above

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0% agreed on others. Jimoh (2008) made a similar observation in a study of drainage dimension in Ilorin Nigeria. In the study it was reported about 31.5% of the respondents were of the view that one of the effects of drainage channel problem is the incidence of temporary street flooding. 101 respondents representing Eti-Aja, 16% agreed on that the main causes of poor drainage systems in streets is poor drainage connectivity, 10% agreed on use of substandard materials for construction 23% agreed on the drainages are not wide enough 13% agreed on heavy rain and 2% agreed on all of the above 0% agreed on others..105% of respondents representing Abuja area 20% agreed that the main causes of poor drainage systems in streets is poor drainage connectivity, 11% agreed on use of substandard materials for construction 8% agreed on the drainages are not wide enough 26% agreed on heavy rain and 14% agreed on all of the above. 87% of respondents representing Kaduna Efekpe , 28% agreed that the main causes of poor drainage systems in streets is poor drainage connectivity, 4% agreed on use of substandard materials for construction 11% agreed on the drainages are not wide enough 9% agreed on heavy rain and 15%. This is in line with Babatolu; (1997) where he noted that, excessively heavy and prolonged rainfall is the commonest universal cause of flood.

Table 9: Causes of poor drainage systems within the study area

	poor drainage connectivity	use of substandard materials for construction	the drainages are not wide enough	heavy rain	all of the above	Total
Ogane Aji	43(45.3%)	0(0.0%)	9(9.5%)	0(0.0%)	23(24.2%)	95(100.0%)
Eti Aja	16(15.8%)	10(9.9%)	23(22.8%)	13(12.9%)	2(2.0%)	101(100.0%)
Abuja Area	20(19.0%)	11(10.5%)	8(7.6%)	26()24.8%	14(13.3%)	105(100)
Kaduna Efekpe	28(32.2%)	4(4.6%)	11(12.6%)	9(10.3%)	15(17.2%)	87(100.0%)
	107(27.6%)	25(6.4%)	51(13.1%)	48(12.4%)	54(13.9%)	388(100.0%)
Chi-Square=89.791 ^a df=15 p=.000						

Source: Authors Survey (2019)

Table 10 shows that out of 95 of respondents representing Ogane-Aji, 49% agreed that the environmental effects of poor drainage systems in streets is flooding 4% and 42% agreed on all of the above ,101% of respondents representing Eti-Aja, 29% agreed on that the environmental effects of poor drainage systems in streets is flooding 38% erosion 5% agreed on the silting of streams 11% distortion of the beauty of the environment and 18% agreed on all of the above 0% agreed on others. 105% of respondents representing Abuja area 15% agreed on that the environmental effects of poor drainage systems in streets is flooding 40% erosion 12% agreed on the silting of streams 15% distortion of the beauty of the environment and 22% agreed on all of the above 1% agreed on others.101% of respondents representing Kaduna Efekpe , 40% agreed that the environmental effects of poor drainage systems in streets is flooding 11% erosion 2% agreed on the silting of streams 3% distortion of the beauty of the environment and 39% agreed on all of the above. This is in line with Taiwo (2008) where he noted that at least five hundred people were rendered homeless and properties worth several millions of Naira were destroyed when the flood, occasioned by torrential rainfall ravaged Babura, a town in Jigawa State in a period of two days. Daniel *et.al*, (2012) in Gombe also observed that 42.5% of the respondents agreed that lack of drainage facilities constitutes the major factor that is causing flood in Gombe.

This study further revealed that factors of flood occurrence in the sampled area is linked to building on water channels, poor physical planning, inadequate drainage channels, heavy rainfall, nature of terrain, dumping of refuse on drainage channels. However, different weighted responses were given in the respective factors of flood occurrence. Other factors like poor planning, inadequate drainage channels, heavy rainfall, nature of terrain, dumping of refuse on drainage channels, only aided the incidence of flooding in tropical urban areas of Nigeria. This has been confirmed by several studies (Abam 2006; Etuonovbe, 2011; Aderogba 2012). It is therefore important that in the construction of drainages the authority should take note of the fact that Anyigba is located within the tropics characterized by prolong and intense rainfall to avert or reduce flood events that has become a recurrent decimal in today. However, in a study by Ole (2013) in Bombay India, floods were observed to be mainly caused by inadequate existing drainage paths and their improper operation and maintenance.

Table 10: Environmental effects of poor drainage systems within the study area

	flooding	erosion	silting of streams	distortion of the beauty of the environment	all of the above	others (specify)	Total
Ogane Aji	49(51.6%)	4(4.2%)	0(0.0%)	0(0.0%)	42(44.2%)	0(0.0%)	95(100.0%)
Eti Aja	29(28.7%)	38(37.6%)	5(5.0%)	11(10.9%)	18(17.8%)	0(0.0%)	101(100.0%)
Abuja Area	15(14.3%)	40(38.1%)	12(11.4%)	15(14.3%)	22(21.0%)	1(1.0%)	105(100.0%)
Kaduna Efekpe	40(46.0%)	11(12.6%)	2(2.3%)	3(3.4%)	39(35.6%)	0(0.0%)	87(100.0%)
	133(34.3%)	93(24.0%)	19(4.9%)	29(7.5%)	113(29.1%)	1(0.3%)	388(100.0%)
Chi-Square=111.957 ^a df=15 p=.000							

Source: Authors Field Survey (2019)



Plate 2: Drainage Network in Ogana Aji

Source: Authors Field Survey (2019)

Table 11 shows that out of 95 of respondents representing Ogane-Aji, 73% agreed that Building setback from the river plain is 1-10m 6% agreed on 11-20m, 8% agreed on 20-30m, 4% agreed on 31-40m, 4% agreed on 40m above, 101 respondents representing Eti-Aja, 8% agreed that Building setback from the river plain is 1-10m 39% agreed on 11-20m, 22% agreed on 20-30m,

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14% agreed on 31-40m, 18% agreed on 40m above, 105 of respondents representing Abuja area. 3% agreed on that Building setback from the river plain is 1-10m 21% agreed on 11-20m, 22% agreed on 21-30m, 22% agreed on 31-40m, 37% agreed on 40m above, 101% of respondents representing Kaduna Efekpe, 15% agreed on that Building setback from the river plain is 1-10m 9% agreed on 11-20m, 12% agreed on 21-30m, 25% agreed on 31-40m, 26% agreed on 40m above this is in line with Jimoh and Alao (2009) where they noted that the high amount of sediment yield is directly related to the amount, duration and intensity of rainfall, as well as stream discharge, which often increases the river water level and finally causes flooding in the basin area in Ilorin. All too often, drains and culverts cannot cope and localized flash flooding occurs. These flash floods happen suddenly, with little lead time for warning; they are fast-moving and generally violent, resulting in threat to life and severe damage to property and infrastructure; and they are generally small in scale with regard to area of impact.

Table 11: Building setback from the river plain within the study area

	1m-10m	11m- 20m	21m-30m	31m-40m	41m and above	Total
Ogane Aji	73(76.8%)	6(6.3%)	8(8.4%)	4(4.2%)	4(4.2%)	95(100.0%)
Eti Aja	8(7.9%)	39(38.6%)	22(21.8%)	14(13.9%)	18(17.8%)	101(100.0%)
Abuja Area	3(2.9%)	21(20.0%)	22(21.0%)	22(21.0%)	37(35.2%)	105(100.0%)
Kaduna Efekpe	15(17.2%)	9(10.3%)	12(13.8%)	25(28.7%)	26(29.9%)	87(100.0%)
Total	99(25.5%)	75(19.3%)	64(16.5%)	65(16.8%)	85(21.9%)	388(100.0%)
Chi-Square=215.712 ^a df=12 p=.000						

Source: Authors Field Survey (2019)

Table 12 shows there is a significant and direct relationship between the width and depth of the drainages in the study area, ($r = p < 0.05$). There is therefore a positive and significant relationship between the width and the depth imply that a successful increase in the depth of the drainages will lead to a corresponding increase in the width of the drainages across the study area.

Correlation between the width and the depth of drainage

		width	depth
Width	Pearson Correlation	1	0.896 ^{**}
	Sig. (2-tailed)		0.000
	N	12	12
Depth	Pearson Correlation	0.896 ^{**}	1
	Sig. (2-tailed)	0.000	
	N	12	12
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Authors Computation (2019)

CONCLUSION AND RECOMMENDATIONS

Waste management among most residents is rather too poor. Refuse and other wastes are usually dumped into available open spaces, including drainage channels and river plains and valleys. This practice has led to the blockage of the drainage channels at various points which could account for the various households interviewed agreeing that flooding is usually a product of such blockages. Many properties have been destroyed, lives lost and this has subjected the people to unquantifiable trauma. Flood increase as a result of incipient and prolong weather conditions. This study shows that flood has impacted on both social and economic activities in

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the study area in a number of ways including displacement of families, migration of people, poor health condition, loss of lives and properties, loss of farmlands, loss of income, loss of household and structural properties, destruction of infrastructure like roads. Many factors were identified as being responsible for flood occurrence. Some of them include building on storm water drainages, poor physical planning, inadequate drainage channels, heavy rainfall, dumping of waste on drainage networks and nature of the terrain. This flood causing factors have created series of environmental and socioeconomic problems in Anyigba. Some of which include flooding of streets, loss of life, pollution of domestic water sources, distortion of the beauty of the environment, prevented from going out among others. The study therefore recommended that Building without plan approval in every part of Anyigba should be unacceptable. In fact, all structures built on drainage way of right should be demolished to reduce the carnage caused by flood and Government should contract a competent company for the construction of underground drainages covering the entire Anyigba as surface drainages have created many problems to the resident including the loss of lives, the present drainage systems should be cleared with shove on regular basis to allow for the free flow of storm water

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A STUDY ON FINANCIAL PERFORMANCE TOWARDS LIFE INSURANCE IN NAGALAND

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1.1 Abstract

Financial performance: Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period. Analyst and investors use financial performance to compare similar firms across the same industry or to compare the industry or sectors in aggregate.

Introduction

1.2 About Life insurance:

Life insurance is Indian state-owned insurance group and investment companies headquarter in Mumbai. It is the largest insurance company in India. It is fully owned by the Government of India. Today Life insurance function with 2048 fully computerized branch offices, 100 divisional offices, 7 Zonal offices and the corporate office Life insurance wide area Network covers 100 divisional offices and connects all the branches through a Metro area network. Life insurance is a contract that pledges payment of an amount to the person assured (or his nominee) on the happening of the event insured against. The contract is valid for payment of the insured amount during the date of maturity, or specified dates at periodic intervals, or unfortunate death, if it occurs earlier. They deal with different types of policy Life insurance they are; Annuities and Pension, endowment policy Life insurance, whole life police Life insurance, money back policy Life insurance, term insurance policy Life insurance.

1.3.1 Introduction on ratio analysis

Meaning of ratio analysis

Ratio analysis is a quantitative method of gaining insight into a company's liquidity, operational efficiency, and profitability by comparing information contained in its financial statements. Ratio analysis is a cornerstone of fundamental analysis. Outside analysts use several types of ratios to assess companies, while corporate insiders rely on them less because of their access to more detailed operational data about a company.

1.3.2 Types of ratio analysis

Most investors are familiar with a few key ratios, particularly the ones that are relatively easy to calculate and interpret. Some of these ratios include the current ratio, return on equity (ROE), the debt-equity (D/E) ratio, the dividend payout ratio, and the price/earnings (P/E) ratio. While there are numerous financial ratios, they can be categorized into six main groups based on the type of analysis they provide.

I. Liquidity Ratios;

Liquidity ratios measure a company's ability to pay off its short-term debts as they come due using the company's current or quick assets. Liquidity ratios include the current ratio, quick ratio, and working capital ratio

ii. Solvency Ratios;

Also called financial leverage ratios, solvency ratios compare a company's debt levels with its assets, equity, and earnings to evaluate whether a company can stay afloat in the long-term by paying its long-term debt and interest on the debt. Examples of solvency ratios include debt equity ratio, debt-assets ratio, and interest coverage ratio.

iii. Profitability Ratios;

These ratios show how well a company can generate profits from its operations. Profit margin, return on assets, return on equity, return on capital employed, and gross margin ratio are all examples of profitability ratios

iv. Efficiency Ratios;

Also called activity ratios, efficiency ratios evaluate how well a company uses its assets and liabilities to generate sales and maximize profits. Key efficiency ratios are the asset turnover ratio, inventory turnover, and days' sales in inventory.

V coverage Ratios;

These ratios measure a company's ability to make the interest payments and other obligations associated with its debts. The times interest earned ratio and the debt-service coverage ratio are both examples of coverage ratios

vi. Market Prospect Ratios;

These are the most commonly used ratios in fundamental analysis and include dividend yield, P/E ratio, earnings per share, and dividend payout ratio. Investors use these ratios to determine what they may receive in earnings from their investments and to predict what the trend of a stock will be in the future.

1.4 Scope of the study -

Financial growth level of the Life insurance company can be determined

The financial status of the company can be revealed.

It would help to analyze its profit, solvency, liquidity efficiency.

It widens the knowledge in the financial area which would help in the future in taking financial decision of our own.

It will also help in understanding the return earned by the investors.

The income earned by the company against the expenses and cost

Efficiency of company assets used to run the business effectively

1.5 Need for study -

To understand the growth level of the company

To provide the financial position of Life insurance

To calculate its profitability, liquidity and activity ratios of the company.

To understand its limitations, importance of the financial statement analysis

1.6 Objectives**Primary objectives -**

To analyze the financial performance of Life insurance by using ratio analysis

Secondary objectives -

To evaluate the growth of Life insurance by using the balance sheet of past 5 years -

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To analyze the operating efficiency of Life insurance -

To understand the financial position of the company

1.7 Research methodology

Primary data:

Primary data is data that is collected by a researcher from first-hand sources, using methods like surveys, interviews, or experiments. No primary data is used in this study.

Secondary data:

Secondary data refers to the data that have been already collected by and readily available from other sources. Data was collected through the annual report of past 5 years

1.8 Limitation of the study

The authority provided the annual report of only past 5 years.

As there are many schedule chart in the annual report of the company it takes so much of time in finding out the information.

Difficulty in finding out the information in the annual report

Only ratio analysis is used to evaluate the financial performance of Life insurance.

Difficulty in finding out the proper information as compared to other companies financial report.

Review Of Literature

2.1 Literature review

Per Ahblom(2017)“A study of how financial numbers become meaningful” This book is about the question of how financial numbers become meaningful. This is one of the most central questions for companies and organizations active on capital markets around the globe because the understanding of these numbers is the basis for capital allocation decisions that can both make or break the real economy. A conceptual starting point for asking this question has been that meaning is not an inherent quality of accounting and financial numbers, nor simply a consequence of perspectives taken by different people

R.Idhayajothi, DR.O.T.V.Latasri, N.Manjula, A.Meharaj Banu, R.Malini, (2014) “A study of financial performance of Ashok Leyland limited at Chennai”, in this research ratio analysis, Common -size statement , Comparative statement, Trend analysis were used to make the research effective. The study is based on secondary data. Data pertaining behavior of liquidity solvency and profitability position were collected from the balance sheet and profit & loss account of Ashok Leyland.

Andrej Pastyr, Daniela Baranova(2016)“Financial analysis of the selected company”; Dusan Baran, In this article the basic scientific methods used were analysis, synthesis, induction, deduction and hypothesis creation, according to him financial analysis is an essential part of monitoring the business subject and is an important tool to support the decision making

various stakeholder groups. Also it provides a picture or feedback about the whole condition of business subject and their development and about a condition of individual operation areas. This analysis is able to identify factors that with the largest stake have caused undesirable results within the business subject

Amalendu Bhunai, Sri Somnath Mukhuti and Sri Gautam Roy(2011) “Financial performance analysis- A case study” The present study aims to identify the financial strengths and weaknesses of the Indian pub Life insurance sector pharmaceutical enterprises by properly

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establishing relationships between the items of the balance sheet and profit and loss account. The study covers two public Life insurance sector drug and pharmaceutical enterprises listed on BSE. The study has been undertaken for the period of twelve years from 1997-98 to 2008-09 and the necessary data have been obtained from CMIE database. profitability ratios Profitability ratio is used to evaluate the company's ability to generate income as compared to its expenses and other cost associated with the generation of income during a particular period. This ratio represents the final result of the company. Profitability ratio = net operating income/total revenues

DATA ANALYSIS IS AND INTERPRETATION

3.1 Profitability ratios

Profitability ratio is used to evaluate the company's ability to generate income as compared to its expenses and other cost associated with the generation of income during a particular period. This ratio represents the final result of the company.

Profitability ratio = net operating income/total revenues

Year	Profitability ratio
2013-2014	20.34%
2014-2015	27.68%
2015-2016	31.04%
2016-2017	33.05%
2017-2018	28.05%

Table- 3.1; Profitability ratio

Interpretation:

From the above Table we can understand that the company's profit has been increasing for the past year 4 years but it has declined in 2018

4.2 Liquidity ratio

A liquidity ratio is a financial ratio that indicates whether a company's current asset will be sufficient to meet the company's obligations when they become due. It is also known as working capital ratio.

Liquidity ratio = current asset/ current liability

Table- 3.2; Liquidity ratio

Year	Liquidity ratio
2013-2014	7.13%
2014-2015	6.13%
2015-2016	5.56%
2016-2017	4.23%
2017-2018	2.53%

Interpretation:

The Company's assets to cover the liabilities have been increasing from 2014 till 2018 as the liability of the company is decreasing.

4.3 Underwriting ratio

The underwriting ratio is a mathematical calculation used to gauge an insurance company's underwriting success. The formula involves dividing underwriting expenses by total premiums spend on underwriting expenses.

Underwriting ratio = claims payment/premium earned

Table-3.3; Underwriting ratio

Year	Underwriting ratio
2013-2014	0.67%
2014-2015	0.6%
2015-2016	0.53%
2016-2017	0.55%
2017-2018	0.62%

Interpretation:

The **Life insurance** company underwriting success has been changing as it can be clearly seen through the Table, it has increased as compared to the past two years, 2013-14 has the highest success comparing with the other four years i.e., 2014-15 till 2017-18.

3.4 Return on asset

The return on asset shows the percentage of how profitable a company's assets are in generation revenue. ROA is an indicator of how profitable a company is relative to its total assets. It is a form of return on investment, measures the profitability of a business in relation to its total assets.

Return on asset = net operating income/total assets

Table- 4.4; Return on assets

Year	Return on assets
2013-2014	0.21%
2014-2015	0.35%
2015-2016	0.58%
2016-2017	0.57%
2017-2018	0.49%

Interpretation

2015-16 has the highest company's profit from the assets; it has decreased in 2017-18 as compared to 2016-17.

SUMMARY AND CONCLUSIONS

5.1 Findings

Life insurance have been continuously generating good income for the past four years but it has decline during 2017-18 period as compared with the other past performances. . The company assets have been increasing continuously to cover the company's liability which shows a positive result in the company's ability of covering its liability. The underwriting success of the company is not stable as it keeps on changing, the highest success ratio was during 2013-14 period and the lowest ratio was during 2015-16 period. There is an effective utilization of the company's asset as the generation of income through an asset is increased but it has decline for the past two recent years. The company's earning through the use of an investment

does not provide a very good result as it has decreased greatly having a comparison with the highest ratio period and lowest ratio period creating a difference of 0.15 percent.

5.2 Suggestions

Increasing the company assets to cover the liabilities will create a safety image in the minds of the investors which in turn create goodwill and a brand image of the company. To increase the investment return by utilizing the investment assets effectively. To continue in decreasing the business liability. Decreasing the cost of managing the business activities will bring high growth and income in the company. To increase the investment yield ratio of the investors encouraging them to invest more. To bring more investors from outside the country and popularizing its financial growth to the foreign countries.

5.3 Conclusion

Through this study we have learnt that the Life insurance business is having a continuous growth in its profitability ratio and increase in the assets to cover its liabilities, the liability of the company has decreased as compared with the past four year performance. The cost of managing the business has also shown a good result, the expense of management has declined which gives a credit to the business. The only negative result of Life insurance through this study is the investment yield ratio of the company has decreased. Life insurance is doing well in increasing the growth of its shareholders fund, its underwriting success and good earnings from its business.

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IMPACT OF SOCIAL MEDIA ON THE EDUCATION OF YOUTH**V. Palanisamy¹, Dr. C. Kathiravan² and V. Matharasi³**¹Assistant Professor, St. Joseph University, Virgin Town, Ikishe Model Village, Dimapur, Nagaland, India²Associate Professor, Department of Business Administration, Annamalai University, Tamilnadu³Assistant Professor, St. Joseph University, Virgin Town, Ikishe Model Village, Dimapur, Nagaland, India**ABSTRACT**

Using social media Web sites is among the most common activity of today's children and adolescents. Any Web site that allows social interaction is considered a social media site, including social networking sites such as Facebook, Myspace, and Twitter; gaming sites and virtual worlds such as Club Penguin, Second Life, and the Sims; video sites such as YouTube; and blogs. Such sites offer today's youth a portal for entertainment and communication and have grown exponentially in recent years. For this reason, it is important that parents become aware of the nature of social media sites, given that not all of them are healthy environments for children and adolescents. Pediatricians are in a unique position to help families understand these sites and to encourage healthy use and urge parents to monitor for potential problems with cyberbullying, "Facebook depression," sexting, and exposure to inappropriate content.

Keywords; Social media, facebook communication

1.1 INTRODUCTION

Social media is defined as websites and applications that enable users to create and share content or to participate in social networking. These sites provide a platform for discussion on issues that has been unnoticed in today's world. It is one of the most modern and favorite form of Social media including many features and social characteristics in it. It has many advantages on same channel like as communicating, texting, images sharing, audio and video sharing, fast publishing, linking with all over world, direct connecting. It is also a cheapest fast access to the world so it is very essential for all age group of peoples. Internet use is increasing day by day now days with high rate in all over the world. Majority of youth is moving quickly from electronic media like as television viewers and radio listeners to the social media among all age of group people. Now a day's youth much moving into social media so its impact are much on youth life. Majority of youth is shifting speedily from electronic media like as television viewers and radio listeners to the social media among all age of group. Youth rate is very much to shifting into social media so its influences are much on youth. *

This craze of social media has led to a host of question regarding its impact on society, while it is agreed that the social media affects people's living styles and it is an ongoing process to identify the nature of these influence in every society and country specially on youth. This activity of social media has cause a lot of problems regarding its effect on society, and it is confirmed that the social media affects human beings living styles and it is a current process to find out the nature of these effects in every society and especially on youth (Shetty et al). This study is conducted to check the impact of social networks in the education of youth. The special objective of this study is to know the opinion and usefulness of social networking sites among youth

1.2 Review of Literature

Berkman (2007:32) analyzed the relationship between social media and youth and reported that

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social media had attracted the youth in a remarkable way. The study revealed that social norms and rules only provided the collectively imagined boundaries. The scholar emphasized that learning through impression management was key to developing a social identity. The scholar suggested that youth should be enabled to determine where they want to be situated within the social world they see. 39 Boyd (2007:37) assessed the role of social media in the lives of youth and observed that social media had attracted the youth and increased their social mobility. The study revealed that social media had created commendable awareness about current affairs among youth. The scholar suggested that social media habits of youth should be monitored by the policy makers and administrators in order to prevent harmful effects. Subrahmanyam et.al (2008:232) conducted an investigation on the use of social networking sites by the adults and noted that social networking sites like MySpace and Facebook were popular online communication forms among adolescents and emerging adults. The study revealed that participants often used the Internet, especially social networking sites, to connect and reconnect with friends and family members. The scholars noted that there was overlap between participants' online and offline networks. The scholars suggested that emerging adults should use different online contexts to strengthen different aspects of their offline connections. Lenhart (2009:153) carried out a study on the role of social media in the lives of teenagers and pointed out that broadband access was not a significant a factor with regard to online teen content creation. The study revealed that a great majority of teen content creators reported having a broadband internet connection at home. The teenagers had better connectivity with the Internet on the basis of high-speed connection. Flannery (2010:81) examined the use of social media by youth and reported that about 93% of teenagers were active users of the Internet. The study revealed that about 70% of the users had used the Internet resources daily. The scholar noted that text messaging had increased most dramatically, along with media multi-tasking. The scholar suggested that youth should be educated about the positive and negative effects of social media. Choi (2010:53) explored the influence of social media on youth and opined that social media had caused aggression, egoism, inflated self-assurance, and skewed perceptions among the youth. The study revealed that a transitioning from personal use to educational use would unlock many wonderful prospects for contemporary 40 youth. The scholar suggested that social media should be used as an effective instrument of social change and development in modern times. Ahn (2011:09) evaluated the effect of social media on adolescents'

Ahn (2011:09) evaluated the effect of social media on adolescents' social and academic development and observed that youth spent a considerable portion of their daily life interacting through social media. The study revealed that social media had affected the social capital, privacy, youth safety, psychological well-being, and educational achievement. The scholar dealt with high-profile concerns and controversies that surround youth participation in these online communities, and offer ripe areas for future research. Jensen (2011:121) evaluated the role of social media in the empowerment of adolescent girls and stated that girls faced tremendous risks at this critical juncture. The study revealed that social media were not used for the purpose of human development across the world actively. The scholar suggested that adolescents' specific social media sites should be developed in order to educate and enlist active participation of adolescents in the academic, social and economic development activities. Sachdev (2011:208) investigated the impact of social networking sites on the youth of India and found that social networking sites were useful to the users in many ways. The study revealed that social networking sites were also useful to Indian society. The scholar suggested that social media should be managed on the basis of ethical considerations and responsibilities. Chen and Vromen (2012:52) studied the influence of social media on youth and reported that social media had motivated the youth for active political mobilization and participation. The study revealed that social media were highly influential media of political communication and participation in

modern times. The scholars suggested that social media should be used as means of political education, organization and empowerment of the people. Rhanem (2012:203) analyzed the relationship between social media and youth participation and observed that social media had provided a place to connect with friends and acquaintances and promote causes and campaigns. The study revealed that social networking sites also contained useful information about participatory 41 governance and development processes. The scholar suggested that youth should be enabled to overcome the harmful effects of social media in modern times. Grube (2012:95) conducted an investigation on the influence of social media on youth and pointed out that social media did not make teens deny or ignore values and information they have absorbed from families, school, religious teachings, and other respected adults. The study revealed that the importance of parental involvement in adolescents' use of the media, the degree of adolescents' understanding of the unreal nature of the media, teens' possible identification with fictional characters or highly visible media personalities, the norms modeled by parents and peers, and adolescents' own understanding of the consequences of health risk behaviors were not seriously examined by the past researchers. Jain and Gupta (2012:117) carried out a study on the impact of social networking sites in the changing mindset of youth on social issues and opined that social media provided platform for discussion of vital issues like violation of human rights, girl's education, adverse effects of global warming, wrong deeds of political leaders, crime against women, corruption etc. The study revealed that the impact of social networking sites on youth was not systematically examined by the researchers in India. The scholars suggested that youth should be trained in the art of using social media for constructive social and political mobilization which facilitate the development of the nation.

1.3 Impact of Social Media

on Youngsters Nowadays social media has become a new set of cool tools for involving young peoples. Many young people's day to day life are woven by the social media Youngsters are in conversation and communication with their friends and groups by using different media and devices every day [16]. In past years it was seen that youngsters are in touch with only friends and their groups in schools and colleges. But nowadays youngsters are in contact not only with known friends but also with unknown people through social networking sites, instant messaging etc. [16]. According to BBC news research of 2013 they discuss that 67% Facebook users are very common and well known social media portal consist of the youth and students, so these praise the fact that the youth and student have more focus and relation [11]. Throughout the country teenagers frequently use the web, mobile phones, online games to communicate and gather information with each other. As per the survey in California the below table shows that how social media impacts the behavioral health of California's adults [17]

1.3.1 Positive Effects of Social Media on Youngsters

- Social media helps youngsters to stay connected with each other.
- Useful information can be exchanged over social networking sites.
- Social networking sites can allow teens to find support online that they may lack in traditional relationships, especially for teens [17].
- In a Critical Development period youngsters also go for social networking sites for advice and information.
- Youngsters can look to social media for getting the answers related to their career objectives.

1.3.2 Negative Effects of Social Media on Youngsters

- Today it's not clear that who the "strangers" are especially in the field of social media.

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- Kidnapping, murder, robbery can be easily done by sharing details on social media.
- There are many cases registered in police station where adults target young children and lure them into meeting them
- Mostly youngsters waste lots of time on social sites like chatting which also effects their health
- Some useless blogs influence youth extremely that they become violent and can take some inappropriate actions.

1.4 CONCLUSION

As the technology is growing the social media has become the routine for each and every person, peoples are seen addicted with these technology every day. With different fields its impact is different on people. Social media has increased the quality and rate of collaboration for students. Business uses social media to enhance an organization's performance in various ways such as to accomplish business objectives, increasing annual sales of the organization. Youngsters are seen in contact with these media daily .Social media has various merits but it also has some demerits which affect people negatively. False information can lead the education system to failure, in an organization wrong advertisement will affect the productivity, social media can abuse the society by invading on people's privacy, some useless blogs can influence youth that can become violent and can take some inappropriate actions. Use of social media is beneficial but should be used in a limited way without getting addicted.

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IMPACT OF RESPONSIBLE TOURISM ON SUSTAINABLE DEVELOPMENT**Dr. Rincy. V. Mathew**

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ABSTRACT

Kerala -aptly called 'God's own country' and has been conferred upon the top United Nations Award. Tourism provide large employment opportunities to the community directly and indirectly. Thus tourism is the inevitable part in a developing country like India and the state Kerala . The role of responsible tourism of Kerala state on sustainable tourism development achieves progress and enables a domestic and foreign tourist to protect tourism environment .This study shows the aim ,benefits and scope of R.T Mission in relation with sustainable tourism with special reference to Kumarakom panchayath, Kerala . The study concludes that responsible tourism is the tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities.

1. INTRODUCTION

Responsible Tourism (R.T) is an alternate tourism approach came up during late 60's/Early 70's environmental concerns of mass tourism mainly conceived with three kinds of responsibilities which are termed as the 'triple bottom-line' economic responsibility, social responsibility and environmental responsibility. Responsible Tourism is about "making better places for people to live in and better places for people to visit" (R .T Mission-report 2019). RT encompasses all forms of tourism and seeks to minimize negative economic, environment and social impacts. It generates greater economic benefits to local people and enhances the wellbeing of local communities. Responsible Tourism concept is based three responsibilities, Economic Responsibility, Socio-Cultural Responsibility and Environmental Responsibility which are known as Triple Bottom Line approach. RT Mission is the nodal agency formed by the Government of Kerala to spread and implement the ideologies and initiatives of Responsible Tourism all over the State(R .T Mission-report 2019).

2. OBJECTIVES

Kerala initiated Responsible Tourism in February 2007 with the State level consultative meeting titled 'Better Together'. The activities of the Responsible Tourism were implemented in a phased manner in the State. The present study aims the following

- 1.To understand the aim and scope of R.T Mission in relation with sustainable tourism .
2. To appreciate the benefits of responsible tourism, especially in terms of sustainable development with special reference to Kumarakom panchayath,Kerala.

3. METHODOLOGY.

This study is descriptive in nature based on secondary as well as primary data. Primary data were collected from people who are related tourism business, social workers ,visitors, the industry people, the environment protestors and host communities and tourist guides in Kumarakom. Secondary data were collected from publications, brochures, research papers,News paper reports, and official websites. Sample size taken for this study is 100.

4. AIM OF RESPONSIBLE TOURISM AND SUSTAINABLE DEVOLPMENT

The Responsible tourism is envisaged with a 'triple-bottom-line' mission which comprises economic, social and environmental responsibilities. Making tourism a tool for the development

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of village and local communities, eradicating poverty and giving emphasis to women empowerment are the main aims of the Responsible Tourism Mission. The mission aspires to provide an additional income and a better livelihood to farmers, traditional artisans, and marginalised people along with creating a social and environmental equilibrium and there by sustainability also(R.T Mission Brochure ,2020). The major deliverables of RT mission are

1. Initiating community level tourism activities
2. Creating tourism trade- community level linkages
3. Encouraging adoption of RT principles and practices by tourism trade and other stake holders.

5. SCOPE OF FUNCTIONS OF THE MISSION ON SUSTAINABLE DEVELOPMENT

Responsible Tourism Kerala wing has also won several Golden Gate awards at the world's leading travel show – ITB Berlin for civic management in Kumarakom village, for supporting women-run restaurants, for its ad campaigns and so on. In addition to this, for two consecutive years, the Responsible Tourism Initiatives in Kerala by Kerala Tourism bagged the 'Best Responsible Tourism Award' awards for its disciplined tourism initiatives in a program organized by the World Travel Mart (WTM) in London. Kerala -aptly called 'God's own country' and the first state in India that has been conferred upon the top United Nations Award, UNWTO Ulysses Award for Innovation in Public Policy and Governance, the highest honor given to government bodies for shaping global leadership and creating innovative initiatives for sustainable tourism (Mathrubhoomy report,2015). Located in the southwestern coast of the country, bordered by the Arabian Sea on the west and Western Ghats on the east, Kerala is famous for its beautiful backwaters, pristine beaches, lush tea gardens, cultural extravaganza and traditional healing practices . According to R .T Mission-report (2019 responsible tourism focuses on the following areas:

- To Initiate community level tourism activities
- To establish tourism linkage to community level activities
- To encourage the tourism trade and other stakeholders to practice RT principles
- To facilitate RT Classification of tourism service providers
- To encourage tourism units and tourists to take up socially relevant activities
- To encourage tourism units and tourists for environment friendly practices
- To build capacity of community at various level to get benefitted from tourism
- To document the field level activities, studies, researches etc
- To create good Industry community relation in tourism sector
- To promote local employment and local procurement
- To promote green principles in construction, green architecture, green protocols in waste management, organic farming etc in tourism destinations
- To promote Fair trade in Tourism
- To facilitate protection and augmentation of farming through Tourism
- To facilitate empowerment of women and marginalized community through Tourism

- To develop local entrepreneurship in tourism
- To protect and promote art and culture through tourism
- To facilitate Training, Research, Product Development and sustainable projects in tourism sector
- To explore NGO Partnership for community related aspects in tourism sector
- To organise Responsible Tourism Clubs at Colleges & Schools
- To promote innovation in tourism sector in economic, social and environmental aspects in tourism to enhance local community benefits.

6. BENEFITS OF RESPONSIBLE TOURISM IN TERMS OF SUSTAINABLE DEVELOPMENT

As a pilot phase, Responsible Tourism (RT) was implemented in four destinations viz. Kovalam, Kumarakom, Thekkady and Vythiri between 2008 and 2010 in which Kumarakom was developed as a successful model. Thus RT became a milestone in the tourism sector of the State in its first phase itself. The first phase was launched on March 14, 2008. The second phase of Responsible Tourism was launched in Kumarakom in March 2012. In the second phase that is between 2011 and 2017, the four destinations selected in the first phase successfully continued their journey and besides this three more destinations were added to this phase. The destinations were Kumbalangi in Ernakulam, Ambalavayal in Wayanad and Bekal in Kasaragod. The destinations worked as business units. From 2011 February, RT cells were placed at all destinations for taking up RT activities and were facilitated through KITTS. With its overwhelming successes, the government of Kerala decided to spread Responsible Tourism all over Kerala (R.T Mission Brochure, 2020). Aimed at the development of local communities and growth of tourism in the State, thus began the third phase of Responsible Tourism. Making tourism a tool for the development of village and local communities, poverty alleviation and women empowerment are the main aims of the Responsible Tourism Mission. Government aspire to provide an additional income and a better livelihood to women, farmers, traditional artisans, and marginalised people along with creating a social and environmental equilibrium. As part of the Mission around 50,000 local residents will get trained in several activities and productions and also hopes to provide direct and indirect employment to around 1,00,000 people in the tourism sector (R.T Mission Brochure, 2020). RT Mission is the nodal agency for implementing Responsible Tourism all over Kerala. Kerala Tourism Policy has RT principles as its base. It is vital to the Department to establish the RT activities. This can be done by taking the principle of RT to the entire field of tourism activities and motivating the tourism service providers to take up the RT principles in their businesses. In this circumstance, the present study is aimed to understand impact of responsible tourism on sustainable development and the survey was conducted in Kumarakom Panchayath of Kottayam district,

Table No.1 Responses Based On Responsible Tourism In Terms Of Sustainable Development

Sl.No	Statements	Yes (%)	No idea (%)	No (%)
1.	To protect the environment, all are used only eco-friendly carry bags	100	-	-
2	Are you happy with tourist management awareness class and help	93	07	-

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	to initiate a sustainable tourism			
3	Are you satisfied with the Arrangement of proper waste disposal method in local areas and keep the surrounding plastic free	96	0	04
4.	Do you think community-based Sustainable Tourism Model encouraging the participation of local communities.	92	08	-
5	Do you think it possible to implement a successful Sustainable and Responsible Tourism Initiatives in all district of Kerala	100	-	-
6	Do you agree that Kumarakom has successfully linked the local community with the hospitality industry and government departments	99	01	-
7	Do you believe women empowerment is possible through responsible tourism	100	-	-
8	Do you think link between local farmers and hotels for the uninterrupted supply of vegetables is successful.	98	01	01
9	Do you think economic responsibility activities undertaken were designed helped to develop all stake holders get an equitable share in the economic benefits of tourism.	100	-	-
10	Do you think supply-chain mechanisms were strengthened to alleviate local communities looming concerns	100	-	-
11	Do you think Zero Waste Kumarakom' and vermicomposting for proper waste disposal and treatment in the area will be successful and which leads to sustainable development	100		
12	Do you believe mangrove regeneration programs preserve the nature in promoting sustainable development	100		

The 'Responsible Tourism' (RT) project in Kumarakom has successfully linked the local community with the hospitality industry and government departments, thereby creating a model for empowerment and development of the people in the area while sustaining eco-friendly tourism (P.V Mathew and M. P Koshy 2014). Table .1 indicates all the participants in the study unanimously agree that to protect the environment, all are used only eco-friendly carry bags (100%) and link between local farmers and hotels for the uninterrupted supply of vegetables is successful. It is also evident from the study that economic responsibility activities undertaken were designed helped to develop all stake holders get an equitable share in the

economic benefits of tourism. Respondents also agreed that supply-chain mechanisms were strengthened to alleviate local communities' looming concerns. Respondents of Kumarakom area reported that 'Zero Waste Kumarakom' and vermicomposting for proper waste disposal and treatment in the area will be successful and which leads to sustainable development and also believe that mangrove regeneration programs preserve the nature in promoting sustainable development (100%). This was achieved through a three-pronged strategy encompassing: Economic responsibility: Activities undertaken were designed in such a way that all stakeholders get an equitable share in the economic benefits of tourism.

7. SUGESTIONS AND CONCLUSION

A tourism management strategy that aids in controlling the overall impacts of tourism while ensuring that the industry remains one of the top economic performers for the region. Through this policy, Kerala limited the quantity of tourists entering the state while monitoring the quality of tourists to ensure that they are culturally sensitive, environmentally friendly and economically viable.

1. Build a comprehensive fact base and update it regularly. Countries, regions, cities, and sites must begin by gathering detailed data and developing their analytics capabilities to inform and refine tourism strategies.
2. Conduct rigorous, long-term planning to encourage sustainable growth. Destinations need to shift their focus from promotion to broader planning and management challenges. Those with a clear, long-term strategy built upon a solid fact base are more likely to achieve sustainable growth and mitigate—or even prevent—overcrowding.
3. Involve all sections of society—commercial, public, and social. The perfect data and strategy can only work if all stakeholders are engaged throughout the process. Tourism authorities should create committees and other formal mechanisms to work with stakeholders, including local communities, to discuss problems and devise solutions.
4. Find new sources of funding. Once data, strategy, and stakeholders are aligned, destinations can explore a growing number of innovative approaches to finance investments in infrastructure and sustainability.
5. Taking lessons from the success of other destinations around the World that have minimized the negative impacts of tourism while maximizing the profits, Kerala required all potential tourists to go through registered tour agencies that follow the sustainability requirements and have an annual set quota barring independent travelers from visiting the state without prior approval.

Therefore the study concludes that responsible tourism is the tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities.

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