



**Network for Research and Development in Africa**

*ISSN: 2384-5849. Volume 6, Numbers 4 & 5. July 2019 - June 2020*

*[www.arcnjournals.org](http://www.arcnjournals.org)*

# **International Academic Journal of Management & Marketing**



*Special Edition*

© 2020, Network for Research and Development in Africa (NRDA)

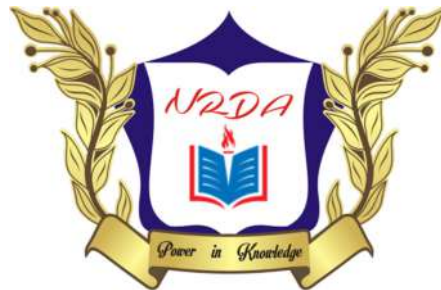
# **International Academic Journal of Management and Marketing**

***Special Edition***

**ISSN: 2384-5849. Volume 6, Numbers 4 & 5, July 2019 – June 2020**

**Network for Research and Development in Africa**

**[www.arcnjournals.org](http://www.arcnjournals.org)**



***Published by: Network for Research and Development In Africa***

**Copyright © 2020 Network for Research and Development in Africa**

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, or stored in any retrieval system of any nature, without prior written permission, except for permitted fair dealing under the law relating to copyright. Open Access authors retain the copyrights of their papers, and all open access articles are distributed under the terms of the Creative Commons Attribution license, which permits unrestricted use, distribution and reproduction in any medium, provided that the original work is properly cited and not distorted.

**Disclaimer**

The Journal and the Editorial Board do not bear responsibility for views expressed by the authors in this Journal. Any problem relating to the articles (i.e. plagiarism, grammatical errors, lexicon errors, spelling mistakes, publishing articles in more than one journal, etc.) is the sole responsibility of the authors and the Journal bears no responsibility for that. The use of general descriptive names, trade names, trademarks, and so forth in this publication, even if not specifically identified, does not imply that these names are not protected by the relevant laws and regulations. While the advice and information in this Journal are believed to be true and accurate on the date of it going to the press, neither the authors, the editors, nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

**Submissions**

Manuscripts adhering to author's guideline should be submitted for double-blind peer-review process to the Editorial Board. Manuscripts should be submitted electronically to: [arcnjournals@gmail.com](mailto:arcnjournals@gmail.com)

## **Editorial Board**

### **Editor**

**Prof. Papali Matingo, Department of Textiles, Events & Interior Decoration, National University of Lesotho**

### **Associate Editors**

**Prof. Douglas Barrett, Murray State University, U.S.A**

**Prof. Margaret N., Department of Education Management, Riara University, Nairobi**

**Dr. Mapotso Nekanti, University of Limpopo, South Africa**

**Dr. Kern Alexander, Western Kentucky University, U.S.A.**

**Dr. Mona Rachael, Egyptian Russian University, Egypt**

**Dr. Richard N., Rongo University, Tanzania**

**Dr. Stan Albrecht, Utah State University, University of Ohio**

**Dr. John Kraft, College of Business Administration, University of Professional Studies, Ghana**

**Dr. Betty Capaldi, Arizona State University, U.S.A.**

**Dr. Rachel M. lecturer at Ricatti Business College, East Africa School of Management, Kenya**

<b>s/n</b>	<b>Contents</b>	<b>Pages</b>
<b>1</b>	<b>The Declining Quality of Education in Nigeria as it Affects the Enterprise Manager,</b> Chukwudi Diego Eziokwu and E. Amah Ph.D.	1-6
<b>2</b>	<b>Effects of Locational Infrastructural Facilities on Residential Property Value in Bori, Rivers State,</b> Deeyah, Christopher L., Kpalap, Elgior M., Kpunpamo Owanate B., Igbara Simeon A., and West, Tamunomiete	7-20
<b>3</b>	<b>Corporate Foresight and Organizational Resilience of Oil and Gas Companies in Nigeria,</b> Chijioke K. Mama and Kemi A. Alagah (Ph.D)	21-31
<b>4</b>	<b>Skill Variety and Employee Withdrawal Behaviour in Telecommunication Firms in Port Harcourt, Nigeria,</b> Gabriel Odey Okache	32-46
<b>5</b>	<b>Office Physical Proximity and Employee Efficiency of Manufacturing Companies in Port Harcourt,</b> Dr. Ebikebina Tantua (Jnr.) and Gloria Osaro	47-58
<b>6</b>	<b>Online Consumer Protection Initiatives and E-loyalty</b> Ateke, Brown Walter and Isaac, Happiness Angel	59-73
<b>7</b>	<b>Green Product Marketing and Achievement of Global Environmental Sustainable Goals in South-South of Nigeria,</b> Nwadike, George Ugonna, Idenedo, Wisdom Otite1 and Okoro, Rowland Chukwuma	74-94
<b>8</b>	<b>Organizational Performance: The Role of Knowledge Sharing,</b> EVWIERHURHOMA, Ejiroghene Daniel and OGA, Kelechi Charles	95-105
<b>9</b>	<b>Marketing Decision-making among Fast Moving Consumer Goods FMCG) Manufacturing Firms in Nigeria: The Place of Quantitative Analysis,</b> Harry, Amieibi-ibama Harcourt, Gbegeh, Boobura Deenor and Dick, Diepriye I.J.	106-114
<b>10</b>	<b>Brand Personality and Customer Loyalty: Empirical Approach and Findings of a Correlational Analytical Study in the Beverage Sector of Nigeria,</b> Harcourt Horsfall (Ph.D), Kayii Numbarabari, Emmanuel (MS.c) and Mac-Kingsley Ikegwuru (PhD)	115-129



# The Declining Quality of Education in Nigeria as it Affects the Enterprise Manager

<sup>1</sup>Chukwudi Diego Eziokwu and <sup>2</sup>E. Amah Ph.D.

<sup>1</sup>Doctoral Student, Department of Management, University of Port Harcourt, Nigeria | Email: [chukwudideziokwu@yahoo.com](mailto:chukwudideziokwu@yahoo.com)

<sup>2</sup>Department of Management, University of Port Harcourt, Nigeria | Email: [Edwinah4christ@gmail.com](mailto:Edwinah4christ@gmail.com)

---

**Abstract:** *This paper theoretically examines the declining quality of education in Nigeria as it affects the enterprise manager. The assessment comprises of the background to the study, statement of the problem, concept of quality education, problems of education in Nigeria which includes (poor governance & management, poor funding and neglect of the education sector, corruption, poor infrastructure and training facilities, poor teacher's welfare, lack of dedication of teachers, lack of high performers and high level of exam malpractices). The paper further explored the impact of low quality of education on the enterprise manager, and finally a conclusion and recommendation was proffered that Nigeria needs to make a strong redemptive move to spare training and the eventual fate of the nation.*

**Keywords:** Education, Enterprise Manager, Nigeria

---

## 1.0 Background of the Study

The nature of training in any country is one of the major keys to national development but the decrease in the quality and standard of education in Nigeria is becoming quite alarming (Olawale, 2017).

The Nigerian school system is increasingly faced with numerous complex challenges. It has been generally observed that the standards of education are on a free fall, likewise the very much cherished morals. Some scholars have argued that the students are to be blamed for their non-dedication to studies, others insist that the blame is more for other stakeholders such as the Government and Teachers etc. Whichever direction the blame goes, a greater percentage of scholars believe that the poor quality of graduates produced by educational institutions, reflects the non-dedication of the current crop of teachers, poor management of our schools, poor infrastructure etc. We have effectively dimensioned the blame game, back and forth, and no matter the dimension one takes, it won't be a simple undertaking to divulge the conditions encompassing the decreasing nature of Education (Arong & Ogbadu, 2010).

It won't be an exaggeration to state that if there is any issue that is on the front burner, and is regularly bantered among instructive partners, it is the issue of declining nature of

training. African News, V.O.A of fifteenth February, 2009 announced that only 20% of Nigerian alumni have quality (sound) education to make them compete for jobs in the labour market, the remaining 80% do not have sound education. This number would be much worse by the end of 2020 and near future. The need to get the systems working is most paramount to the educationists and the enterprise manager.

This paper tends to expose some of the root causes of the continuous decrease in the nature of instruction in Nigeria, especially as it affects the enterprise manager and make the necessary recommendations.

## **2.0 Statement of the Problem**

The issue of the declining quality of education as it affects the enterprise manager which speaks to the difficulties of the Nigeria's labour market, for example, meeting its work force needs. A good number of employers have been stunned that some alumni candidates can scarcely compose, nor are they conversant in the English language-which, incidentally, is the language of instruction in the country ([www.dailytrust.com.ng/debating-quality-of-education-in-nigeria.html](http://www.dailytrust.com.ng/debating-quality-of-education-in-nigeria.html)).

It is in this feeling an increasingly all-encompassing way to deal with quality merits consideration; all things considered, an issue analyzed is an issue half understood.

Defining and measuring quality in our educational system and comparing quality across nations, in the broader meaning of the term, is a more-or-less impossible task. The aspiration of this paper is unmistakably progressively constrained, addressing how well advanced education graduates are set up for working life. The improvement towards mass advanced education has prompted a developing worry around a few parts of value, including the importance of advanced education for the work market. As a result of the fast development, graduates have secured occupation outside the knowledge bases that the colleges generally arranged for. Even if graduates get employment, there remains the question of how well they are prepared to conduct the work-tasks. The observed decline has affected the performance of the enterprise manager and has, on the overall, decreased organizational output, be it product or services.

## **3.0 The Concept of Quality Education**

The concept of education is not something to give a generally accepted definition. For there are such huge numbers of definitions as there are many authors who tend to define it from their own points of view. Collins concise English dictionary defines education as "the act of or process of acquiring knowledge and the theory of teaching and learning". Kaita (1969) cited in Arong and Ogbadu (2010) sees it to mean "learning which is training and bringing up". According to Peters (1987) cited in Arong and Ogbadu (2010), education is a process of socialization, enculturation and transmission of what is worthwhile to those who are committed to it, be the children or adult. This conception implies that those who go through it want to improve themselves. Okafor (1988) cited in Arong and Ogbadu (2010) sees training as a procedure of cultural assimilation through which the individual accomplished the advancement of his possibilities and their most extreme actuation when important as indicated by right reason and to accomplish his perfect self-fulfillment. Cremin (1971) cited in Arong and Ogbadu

(2010) defines it as a deliberate systematic and sustained effect to transmit, evoke or acquire knowledge, values, attitudes and skills. For Cater Good, education is the craft of making accessible to every age, the composed information of the past. Comparing Okafor and Cremin's definitions, we would prefer that of Okafor because it is nearer to our own view which sees education as a lifelong project. Education should be seen as starting from birth and ending at one's death.

Training is intended to convey what it should convey (profits). Any type of Education coming up short on those profits, has no quality. As indicated by Professor L.J. Ogbadu in the forward of open privileged insights of scholastic brilliance, quality training is that its item had sound instruction which can be safeguarded by its alumni items. From the previous, it could be appropriately found that, when the level of greatness in instruction brings down ward development, its quality is then said to fall.

Quality training or education is intended to *involve a blend of three elements of the Head, the Heart and the Hand (the three H's) and any society that fails to achieve this blend will end up producing half-baked graduates* ([www.abuad.edu.ng/the-decline-in-quality-education-in-nigeria-1-the-purpose-of-education/](http://www.abuad.edu.ng/the-decline-in-quality-education-in-nigeria-1-the-purpose-of-education/)).

#### **4.0 Problems of Education in Nigeria**

##### ***Poor governance and management***

One thing that has disabled most areas in Nigeria today is poor administration and implementation of policies. The instructive area isn't an exemption. The government's frame of mind towards critical issues like education, particularly its quality, is languid. This circumstance can be seen on all levels of education. The management of our institutions of learning has been left for politically minded officers. More attention is paid to the protection of political and ethnic interests rather than engaging the services of professionally trained and qualified administrators.

##### ***Poor funding and neglect of the education sector***

The educational system in Nigeria is ineffectively supported by previous and current government in Nigeria, both at the local, state or federal levels. United Nations Educational, Scientific, and Cultural Organization (UNESCO) prescribes that 26% of a country's budgetary limit ought to be dispensed to the education segment. As indicated by the examination done by a main news source "Every day Trust" in 2016, the joint use budget of the federal government and 33 state governments on education is 8.44% of their complete spending plan for the year. This is way lower than the prescribed benchmark. Governments in Europe and American has since gone beyond the set limit, knowing the importance of quality education to the economic development of their respective countries.

##### ***Corruption***

Corruption is prevalent in each and every sector of Nigeria's facet including Education. It happens in the instructive framework at an alarming high rate and level. Accepting unsolicited money is commonly practiced by the administrators as well as instructors in our school systems. Monies made available for the educational framework including upkeep, and running



of schools and foundations are being tampered with. Additionally, the role played by parents and Guardians in the growing corruption in our educational system is quite huge. As per the report by the Independent Corrupt Practices and Other Related Offenses Commission (ICPC), corruption is endemic in Nigerian Universities today and there is an absence of political will to manage it.

***Poor infrastructure and training facilities***

Most schools and establishments in Nigeria are in terrible conditions. In many public schools in the Nigeria, the training conditions are far from being conducive. The structures are in a dilapidated condition while good educational materials are rarely utilized during trainings or learnings. Various researches have shown that very little impactful learnings can be achieve in an unconducive environment; the rate of assimilation grows deem in the face infrastructural deficits in the educational framework.

***Poor teacher's welfare***

This is another serious issue influencing the growth of quality education in Nigeria. It is one of the results of both responsible budgeting and debasement of the nation's foundation. This is the proverbial hen that lays the golden egg. Poor salaries and rewards, openly seen in both public and private institutions, are some of the issues that the teaching workforce face in Nigeria. It is a miserable practice that instructors, now and again, engage in destructive labour practices before they could get any reasonable pay increment or get the government or administrators to look into issues that borders on their welfare. This ought not to be, considering the role teachers or instructors play in creation of a desirable workforce.

***Lack of dedication of teachers***

This is an immediate impact of the poor welfare of the instructors or teaching staff. In recent times, teaching isn't viewed as a rewarding career path in Nigeria. In this way, very few individuals need to progress toward becoming teachers or to remain in the calling. The ones that have been trapped, are no longer devoted, some even abhor their employments. The greater part of the teachers in Nigeria engage in extracurricular activities just to meet up with financial demands of their various families. Along these lines, they invest more energy going after these activities instead of impacting knowledge in classrooms. Some others even carry out such activities like selling of garments and different things within the school environment at the detriment of the learning process of their students.

***Lack of high performers***

It's anything but a mystery that there are educators in Nigeria schools particularly at the essential instruction level that are underqualified. There have been situations where instructors can't communicate in English appropriately. Likewise, most instructors come up short on the best possible training that will empower them go over the truly necessary quality training. This is mostly caused by the absence of high performers who are more interested in working for the high paying multinationals than engaging in the low paying teaching jobs in Nigeria.

***High level of exam malpractices***

There is a disturbing high rate of exam malpractices in Nigeria. It can be traced to lack of studious lifestyle of the students, poor upbringing by the parents and the nonchalant attitudes of the instructors. The failure of successive legislations to check this has caused a genuine

decrease in the nature of the Nigerian instruction framework items (level of learning). The high level of malpractice in our institutions of learning has led to low quality workforce available for the enterprise manager.

### **5.0 Impact of Low Quality of Education on the Enterprise Manager**

Education is the soul of any nation, the key to its secured future. It is a well-known fact that the education system in Nigeria is decaying. This poor condition of the nation's learning culture, which has affected the economic growth of both private and publicly owned enterprises, has been ascribed to various causes including underfunding, low-quality of the teaching staff, poor infrastructural framework, poor instructors' welfare and nonappearance of devoted specialists etc.

From primary through secondary to the tertiary level, the decay is stunning. It is a decline, which must be dimensioned if the future of the enterprise manager would not be drastically jeopardized.

For several years, employers have decried the falling standard in the overall educational framework and more especially, our institutions of higher learnings. They have seen from progressive governments a foundational brokenness that has kept on hindering the development of instruction and the nature of alternatives accessible for business contemplations. They have likewise seen how an energetic scholarly culture that reproduced skippers of enterprises and sentiment leaders, has been supplanted by a raging, consumerist pattern producing nurseries of mediocrities.

The enterprise manager has been faced with an alarming dearth of knowledgeable manpower leading to low industrial performance compared with counterparts in developed countries. The poor educational system has consequently limited the number of industry fit graduates available to the enterprise manager for recruitment and employment.

### **6.0 Recommendations and Conclusion**

A complete overhaul of the existing curriculum is imperative to upscale standards and redirect the focus and mindset of the youthful population towards learnings that can challenge status quo and bring out the creativity in an ordinary Nigerian child. The Multinationals and other high valued organizations that operate in Nigeria must be consulted for their input in the new school curriculum. This is to ensure that the outputs from the educational system is trained or instructed to the need of the enterprise manager. This will also enable our schools understand the relevant skills and knowledge needed in the industries, and as well educate the students in that line. Technical institutions should be equipped with both the needed human and material resources that will enable them produce technically sound technicians that can replace the many expatriate technicians that service most of our industries. The Nigerian child must also start the procedure of internalizing the dream of our forefathers, with a view to living it, through the philosophical framework of an education system that includes vigorous re-introduction of history and civic education.

It is obligatory on governments and other organizations to see that the education system is improved at all levels, both infrastructural and otherwise. Teachers should be trained and retrained while being paid competitive salaries and allowances, as at when due. Incentive schemes should be put in place to encourage hard work among the teachers and students alike, and also to attract the best brains to the teaching profession. Strident legislations should be enacted and implement to guide against examination malpractices. Culprits, be it teachers or students, should be made to face the full wrath of the law. What's more, since the future improvement of the country is attached to its adolescents, government at all levels must make the necessary investment in specialized training of the teeming youthful population. The nation should endeavour to sustain a framework whose items would be aggressive with their partners in the remainder of the world.

## References

- Adesina, C. (1977). *Declining Quality Education in History of Education in Nigeria*. NPS. Ibadan: Educational Publishers Ltd.
- Adesina, C. (1988). *The Development of Modern Education in Nigeria*. Heinemann Educational Books NIG. LTD Ibadan, Nigeria.
- Arong, F. E., & Ogbadu, M. A. (2010). Major Causes of Declining Quality of Education in Nigeria from Administrative Perspective: A Case Study of Dekina Local Government Area. *CANADIAN SOCIAL SCIENCE*, 6(3), 183-198.
- Baikie, A. (2002). *Recurrent lessons in Nigerian Education*. Zaria, Nigeria: Tamaza Publishing Company Ltd.
- Fafunwa, C. (1974). *History of Education in Nigeria*. London U.K: George Allen and Unwin.
- National Teachers' Institute, Kaduna (2009). Postgraduate Diploma in Education, module 205 on Educational Supervision and School Inspection. pp. 198-204.
- NTI, (1990). *Historical Foundation of Education*. NTI, Kaduna.
- Obadia, G. O. (1979). *Essentials of Social Studies for Schools and Colleges*. Lagos and London: Macmillan Publishers.
- Olawale, J. (2017). *Problems of education in Nigeria and their solutions*. Accessed from ([www.legit.ng/1104678-problems-education-nigeria-solutions.html](http://www.legit.ng/1104678-problems-education-nigeria-solutions.html)) on the 9<sup>th</sup> June, 2019.
- Ozigi, A. O. (1977). *A Handbook on Social Administration and Management*. Lagos and London, Macmillan Publishers Ltd.
- [www.abuad.edu.ng/the-decline-in-quality-education-in-nigeria-1-the-purpose-of-education/](http://www.abuad.edu.ng/the-decline-in-quality-education-in-nigeria-1-the-purpose-of-education/)
- [www.dailytrust.com.ng/debating-quality-of-education-in-nigeria.html](http://www.dailytrust.com.ng/debating-quality-of-education-in-nigeria.html)



## Effects of Locational Infrastructural Facilities on Residential Property Value in Bori, Rivers State

<sup>1</sup>Deeyah, Christopher L., <sup>2</sup>Kpalap, Elgior M., <sup>3</sup>Kpunpamo Owanate B., <sup>4</sup>Igbara Simeon A., and <sup>5</sup>West, Tamunomiete

<sup>1,3,4</sup>Department of Estate Management, Ken Saro-Wiwa Polytechnic, Bori.

<sup>2</sup>Department of Architecture, Ken Saro-Wiwa Polytechnic, Bori

<sup>5</sup>Department of Urban and Regional Planning Ken Saro-Wiwa Polytechnic, Bori.

Correspondence email: [chrisdeeyah@gmail.com](mailto:chrisdeeyah@gmail.com)

---

**Abstract:** This paper aims to determine statically the relationship between Locational Infrastructural Facilities and Residential Property Value in Bori, Rivers State. The paper investigates the infrastructural facilities and rental values of residential properties in the selected residential neighbourhoods to ascertain if rent passing on residential properties in the selected streets have link to locational infrastructural facilities. A multi-stage sampling technique is used to identify the residential neighbourhood; number the buildings and household from the selected streets; select household respondents to be studied from the selected streets, while simple random sampling was used to select household respondents to respond to the data collection instruments. The study used closed ended questionnaires designed for household and was administered by the researcher through drop and pick method. Reliability and Validity of data collection instruments was ascertained through the test-retest method. Pearson Product Moment Correlation Coefficient was employed to analyze the data with the aid of statistics using Statistical Package for the Social Science (SPSS). Findings indicate an  $r$ -value of 0.914 which shows a positive relationship between the average scores of infrastructural facilities and average rental values; while the  $t$ -test results shows that at 0.05 level of significance,  $t_{cal} = 3.88$ , and  $t_{tab} = 2.78$ . The study infer that rental values tended to peak in location that enjoy one form of infrastructure or the other. It recommended that infrastructural facilities be provided in locations with fewer infrastructures to improve value and encourage movement of people into these locations as an alternative to over-crowding one part.

**Keywords:** Locational Infrastructural, Available Facilities, Residential Property, Rental Value

---

### 1.0 Introduction

The state of infrastructure is an important parameter for assessment and indicator of status of any urban system (Ajibola, Awodiran and Salu-Kosoko, 2013). Infrastructure covers a wide range of services and facilities which include water, road, waste disposal, drainage, communication, primary health services, schools and housing. (Olaseni and Alade 2012) classified Infrastructures broadly into two: physical (roads, electricity, telecommunication, drainage system, etc.); and social (education, health, recreation, housing etc.). According to

Nubi, 2003), the physical infrastructure is referred to as economic infrastructure. Ajibola *et al.*, (2013) observed that adequate provision and effective management of public infrastructures improved productive and profitable land uses in an urban area. As the effectiveness of any form of human activity in an urban area mainly depends on the provision of efficient infrastructure and services, its significance in the proper functioning of an urban area cannot be underestimated (Babarinde, 1998). According to United Nations, (2010), the quality and coverage of infrastructure services have a significant impact on economic growth and standards of living, yet it is estimated that about two billion people lack access to adequate sanitation and electricity while one billion lack access to clean water. Availability of infrastructure is often one of the factors affecting the demand and choice of residential property as man is a socio-economic being seeking to dwell in residential units that provides maximum supply of necessary facilities at affordable costs. Providing infrastructure that would enhance the living condition of residents within a neighbourhood is thus very essential. Oni (2007), citing Goldberg (1970), said that “real property values tend to increase in areas with expanding transportation networks, and increase less rapidly in areas without such improvements”. He note that rapid and continued rise in property value are expected in cities with infrastructural improvements and rapid economic and population growth.

Rental values of properties also vary from place to place depending on various factors among which availability of facilities stand prominent. Most often, when factors affecting rental values of residential properties are considered, the most commonly discussed factors are location, quality of building, demand and supply rate among others are the most commonly mentioned with little or no regard for the availability of public facilities and infrastructures. Property has no intrinsic value when marketed. Value exists only where the property has a 'beneficial use' that is, use in occupation, or a potential to offer use in occupation. If occupational demand is weak, or lacking, the rent or price that the property can command in the market is lowered. Ihuah and Benebo, (2014) opined that reliant on availability of sufficient infrastructural provisions such as: good road network; portable water supply system; drainage system etc leads to effective economic activities functioning and development level fulfilment in either urban or rural environment and that the significance of their provision, is to enhance real property values, as well as promote the social and economic life of the people in that built environment.

The increasing rate of variations on rental values of residential properties among varying residential neighbourhoods in many towns and cities in Nigeria in recent time has continue to dominate discussions within the spheres of practicing estate surveyors and valuers, landlords, investors, tenants, estate brokers, as well as policy makers on property investment and management in Nigeria. Though different studies on housing rentals determination have been carried out internationally, that acknowledged condition of dwelling characteristics, attributes of residential location and neighbourhood attributes as the foremost factors that causes housing rental variations (Kiel & Zabel, 2008; Ajibola *et al.*, 2013). Most of these studies are foreign with only a little of them done in the south west, Nigeria. Hence, this study attempt explores the significance of the various infrastructural facilities on rental values of residential properties in the study area. In doing this, the research will answer the following questions.

- I. What are the infrastructures facilities in the various residential neighbourhoods in Bori?
- II. Are there any variations in infrastructures facilities and rental values in the various residential neighbourhoods in Bori
- III. Is there any relationship between infrastructure facilities and rental value?

### **1.1 Hypothesis**

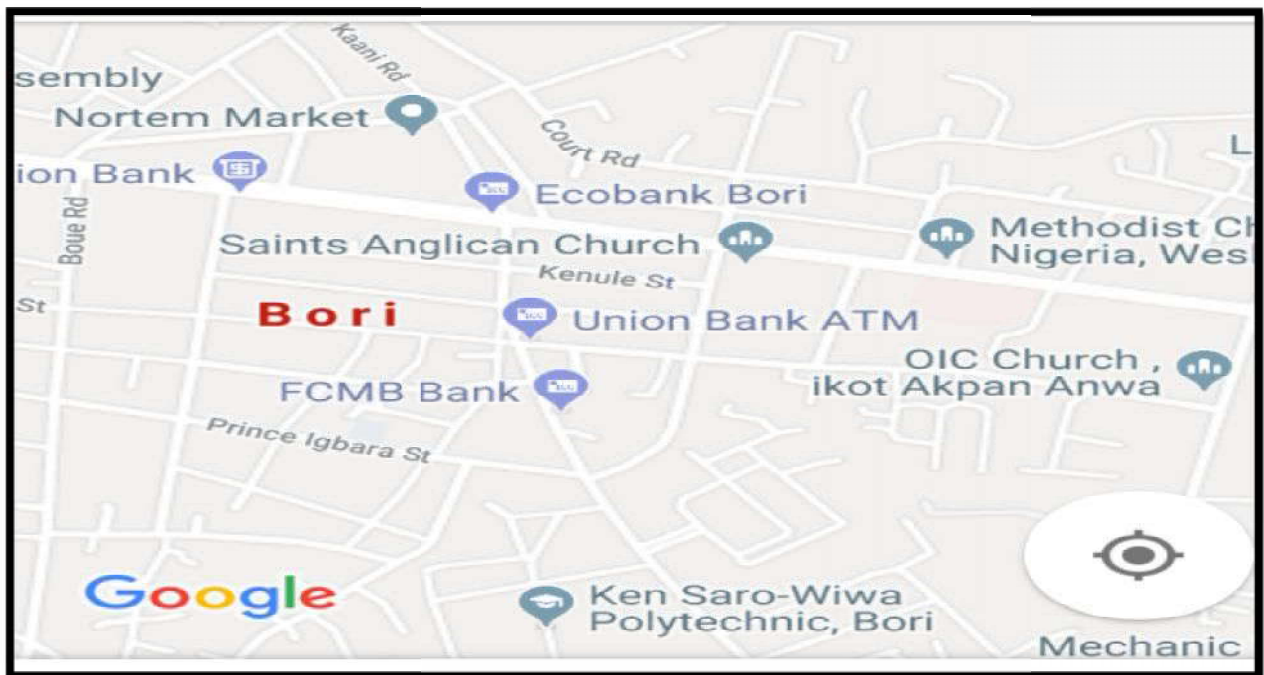
This research is based on the following hypothesis:

H1 - There is statistically significant relationship between infrastructural provision and rental value in Bori.

H0 - There is no statistically significant relationship between infrastructural provision and rental value in Bori.

### **1.2 The Study Area**

Bori the head quarters of Khana Local Government is located on coordinates  $4^{\circ} 40' 22' \text{ N}$  and  $7^{\circ} 22' 13' \text{ E}$ . It occupies a total land area of approximately  $50\text{km}^2$  with a population of 250,000 people. Bori also doubles as the traditional headquarters of Ogoni ethnic nationality which consist of four local governments (Eleme, Tai, Gokana, and Khana). It is an ancient community transcending from the capital of the old Bori division to the head quarters of the present Khana Local Government Area. It is bounded to the North by Tai and Gokana Local Governments, to the South by Wiiyaakara, to the East by Kaani and kor and to the West by Zaakpon and Boue communities.



Source: Google Map showing Selected Streets in Bori.

The people engage in subsistence agriculture and fishing. They are also involved in diverse business ranging from petty trading to complex and commercial ventures such as super market and standard restaurants, hotels and recreational outfits. Bori is fast growing from a rural area

into an urban area. The presence of Ken Saro-Wiwa Polytechnic, has led to an increase in the rate of development of residential and commercial properties which connects people across all parts of Bori. The availability of Ken Saro-Wiwa Polytechnic, central market, hospitals secondary and primary schools, road networks, drainages, water supply, parking space, security network and other infrastructural facilities has also led to the attraction of students from all walk of life and population from the neighborhood communities to Bori. This development has led to increase demand for residential accommodation and upsurge in rental values in different neighbourhoods in Bori hence the choice of the location for the study, so as to determine whether rent passing in the various street have link to locational infrastructural facilities.

## **2.0 Literature Review**

### **2.1 Concept of Urban Infrastructure**

The Longman online dictionary (2014) defines infrastructure as the basic systems and structures that a country or organization needs in order to work properly, for example roads, railways, banks etc. The term typically refers to the technical structures that support a society, such as roads, water supply, sewers, electrical national grids, telecommunications, and so forth, and can be defined as "the physical components of interrelated systems providing commodities and services essential to enable, sustain, or enhance societal living conditions" (Fulmer, 2009). Infrastructure is the aggregate of all facilities that allow a city function effectively Nubi (2003). Nwuba and Salawu, (2010) see infrastructure as a key element in the generation of economic growth and development and the main driver of urban activities. It is the economic and social underpinnings of a society and the life wire of the urban system. Patunola (2013) describe infrastructure as the sectors of transport, water and sanitation, power, telecommunication and others which represents a large portfolio of expenditure in all countries, ranging from a third to one-half of the public investment (equivalent is roughly 3-6 percent of GDP). Infrastructure covers a wide range of economic and social facility crucial to creating an enabling environment for economic growth and enhances quality of life which includes housing, electricity, pipe-borne water, drainage, roads sewage, health, education, telecommunication and institutional structures like police station, fire fighting station, banks and post office. It is simply the engine that drives the development of any city (Bello, Adeniji, Arowosegbe, 2013).

### **2.2 Effects of Infrastructure on Rental Values**

Economies require the development of infrastructure, such as water, energy, roads development, transport networks, information, and communication technology for sustainability and these urban services also positively influence the value of real estate as they improve housing conditions and quality (Famuyiwa and Otegbulu, 2012). Different scholars have variously stressed the relevance of infrastructure in all spheres of life. Previous studies, including Burgess (1925), Keeble (1969), Odudu (2003), Johnson, Davies and Shapiro (2005) have considered the effect of location on property values. Their various findings established location as a major determinant of property value. Location is important in relation to proximity to the target market and sources of supplies; conditions and facilities are important in relation to attracting optimal rentals, and security is important in relation to tenant safety. Keeble (1969) affirmed that properties in areas that are well serviced with pipe-borne water enjoy

higher rental values compared to areas where the service is non-existence. Odudu (2003), in examining the Significance of Infrastructure in Determining Land and Rental Values in an Urban Area of Lagos metropolis observed that rental values tended to peak in those locations that enjoyed one form of infrastructure or the other. Collaborating this, Johnson, Davies and Shapiro (2005) affirm that the presence of infrastructure often leads to appreciation in property values while its absence affects neighbourhood properties adversely.

Olajide (2010) carried out a study of urban poverty and environmental conditions in informal settlements of Ajegunle, Lagos, Nigeria established that, one of the basic factors that determine property values especially residential property is the reliability of physical security of the neighborhood as well as that of the property. She argued that, residential estates that are prone to robbery attacks usually suffer reduction in both capital and rental value. She further said that, the rate of turnover of properties suffering from inadequate security is usually low thereby rendering such properties unattractive and unprofitable. Ajibola, et al (2011) while studying the effects of Infrastructure on Property Values in Unity Estate, Lagos, Nigeria maintain that where properties are accessible through good road networks, it would enjoy high rental values.

Ibrahim, (2013) x-ray the influence of location on property values and business development in Nigeria using Ilorin metropolis as a case study. Findings indicate that Business development concentrated and grows more intensively in neighbourhoods with highest level of accessibility. He maintained that rent skyrocketed on the properties in the areas which may eventually give rise to gentrification whereby important but less financially rewarding businesses are forced to relocate elsewhere. The study recommends that the government should provide infrastructures in the less developed areas to encourage people move into the area rather than over-crowding one part of the city.

Udoka, (2013) while studying the imperatives of the provision of infrastructure and improved property values in Nigeria beamed its light on the relationship between property values and the development of infrastructure; the factors that influence property values; and trend of infrastructural development in Akwa Ibom State in recent past observed that the closer a residential area is to new infrastructural projects, the higher the increase in its values.

Ihuah, Ekenta, and Nwokorie, (2014) carried out investigation on the impacts of inadequate infrastructures provision on real property value, using Agbama and Ehimiri Housing Estate located in Umuahia City of Nigeria. The study uses an open and closed ended questionnaire designed with multiple choice test questionnaire survey on a total of 400 households and landlords reveal that there were lack of or inadequate good road network, electricity supply; portable water; drainage system; waste management system; recreational facilities; particularly in Agbama housing estates and that these inadequate infrastructures and its weak correlation contribute to increasing negative impacts on real property and its rental value.

Ankeli et al (2015) are of the opinion that, the determination of residential property value is a complex and major challenging task facing both practitioners and intellectual in the real estate profession in Nigeria as the exercise involves the collection and analysis of comprehensive and accurate data on the property characteristics, neighborhood



characteristics, landlord and tenant characteristics and market conditions which are not readily available and concluded that, properties with better conditions in terms of infrastructures and physical soundness command higher rental values.

Ankeli , et al (2016) while examining the available infrastructural facilities in residential properties in Osogbo with the aim of evaluating their impact on the rental values of residential properties in the study area divided Osogbo Metropolis into four residential zones and administered a total of 450 questionnaires on the respondents using systematic random sampling techniques. With 95% response rate, the study revealed that, properties with better conditions in terms of infrastructures and physical soundness command higher rental values. It recommends the need for the provision of essential basic infrastructure by government and its agencies and schedule sustainable maintenance programmes for the infrastructure facilities provided.

### **3.0 Research Methodology**

This section discusses the methodological approach used for the collection of the relevant data, analysis and discussions of findings. The research design adopted in this study is the Survey design. This is because the study variables are not subjected to manipulation and can be generalized to larger population. The target population for this study were basically household members. A multi-stage sampling technique is used to select household respondents for the study. Multi-stage sampling is normally used to overcome problems associated with a geographically dispersed population when face-to-face contact is needed or where it is expensive and time consuming to construct a sampling frame for a large geographical area (Saunders, Lewis and Thornhill, 2009). The technique involves taking a series of cluster samples, each involving some form of random sampling. The sampling phases include:

Phase 1 carrying out a reconnaissance survey to identify the residential neighbourhood within Bori. A total of 52 streets were identified within the study area.

Phase 2 Selecting 6 streets for building counts/ numbering of the buildings and household from the selected streets.

Phase 3 Selection of household to be studied from the selected streets.

Phase 4 selections of household respondents using simple random sampling.

The Taro Yamane's formula for finite population was used to determine the sample size from the population of households to be studied. This gave a sample size of two hundred and seventy four respondents. The formula is given thus:

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

Where, n = the sample size; N = the finite population; e = level of significance (0.05 limit of tolerance error); 1 = unity (a constant)

**Table 1: Sampling Information on Studied Households**

Name of street	Total No. of Buildings	No. of Households Listed	Sample Size
Hospital Road	103	175	64
Poly Road	38	65	39
Prince Igbara	44	75	43
Faith Way	28	53	35
Kaani Road	55	94	48
Court Road	48	82	45
<b>Total</b>		<b>544</b>	<b>274</b>

Using the Taro Yamane Formula @ 10% Level of Precision

#### **4.0 Results and Discussion of Findings**

The findings of this research work are presented below in figures and tables for easy communication and interpretation. The questionnaire used a 5-point Likert scale to measure the functionality, efficiency and adequacy of the facilities in these locations; the rating on the scale is as follows:

1 = Strongly Disagree,

2 = Disagree,

3 = Neutral,

4 = Agree, and

5 = Strongly Agree

Thereafter, descriptive statistics tool were used to analysed the data in order to determine the Weighted mean (WM) score for various locations.

#### **4.1 Identification of infrastructure in the locations**

The researcher sought to identify the type of infrastructure available in the study area. Respondents were required to express their opinion regarding the type of infrastructural facilities in Bori. Their responses are presented in Table 2 below. Table 2 shows that respondents agree that all the listed items of Infrastructure School, Road, Drainage, Water supply, Parking space and Security are available in Bori with a mean score of above 3.00.

**Table 2: Infrastructure in the Locations**

Available infrastructure	5	4	3	2	1	Sum	Mean	Decision
School	160	71	43	0	0	1,213	4.43	Agree
Road	157	70	20	11	16	1,163	4.24	Agree
Drainage	138	67	47	13	09	1,134	4.14	Agree
Water supply	80	74	67	40	13	990	3.61	Agree
Parking space	60	80	70	22	42	916	3.34	Agree
Security	53	65	80	24	20	833	3.04	Agree

**Legend:** <3.00 = Inadequate >3.00 = Adequate

**Source:** Field Survey, 2019

#### 4.2 Availability and functionality of facilities

The researcher sought to determine the level of availability and functionality of the identified infrastructure in the selected streets in Bori. Respondents' household were required to rate identified facilities in their neighbourhood whether they were available and functional. Responses of the respondents' household are shown in table 3 below:

**Table 3: Availability and Functionality of Facilities**

Option	5	4	3	2	1	N	SUM	MEAN
<b>Road</b>								
Hospital Road	37	20	5	2	0	64	277	4.33
Poly Road	12	22	5	0	0	39	163	4.18
Prince Igbara	21	18	4	0	0	43	189	4.40
Faith Way	7	6	12	9	2	36	115	3.19
Kaani Road	0	0	9	18	21	48	84	1.75
Court Road	20	12	7	9	0	45	187	4.16
<b>Drainage</b>								
Hospital Road	12	29	16	4	3	64	235	3.67
Poly Road	13	25	1	0	0	39	168	4.31
Prince Igbara	5	10	19	9	0	43	140	3.26
Faith Way	0	0	20	10	6	36	86	2.39
Kaani Road	0	0	18	12	18	48	96	2.00
Court Road	15	12	12	5	0	45	169	3.76
<b>Security</b>								
Hospital Road	16	13	20	10	5	64	217	3.39
Poly Road	12	8	19	0	0	39	149	3.82
Prince Igbara	14	22	7	0	0	43	179	4.16
Faith Way	14	10	10	2	0	36	144	4.00
Kaani Road	0	0	14	22	12	48	98	2.04
Court Road	0	0	26	13	9	45	113	2.51
<b>Water Supply</b>								
Hospital Road	2	10	34	11	7	64	181	2.83
Poly Road	5	22	5	7	0	39	137	3.51
Prince Igbara	0	10	16	17	0	43	122	2.84
Faith Way	20	8	3	5	0	36	146	4.05
Kaani Road	0	0	0	8	40	48	56	1.17
Court Road	4	6	12	10	16	45	116	2.58
<b>School</b>								
Hospital Road	20	22	5	17	0	64	237	3.70
Poly Road	20	18	1	0	0	39	175	4.49
Prince Igbara	15	19	9	0	0	43	178	4.14
Faith Way	22	10	6	0	0	36	4.38	4.39
Kaani Road	0	0	15	19	14	48	97	2.02

Court Road	3	5	16	14	10	45	121	2.69
<b>Parking Space</b>								
Hospital Road	18	22	8	10	6	64	228	3.56
Poly Road	0	6	10	16	7	39	93	2.38
Prince Igbara	2	7	12	14	8	43	110	2.59
Faith Way	25	6	4	0	0	36	161	4.47
Kaani Road	0	3	13	20	12	48	103	2.14
Court Road	1	3	20	15	7	45	100	2.22

**Legend:** <3.00 = Inadequate >3.00 = Adequate

**Source:** Field Survey, 2019

#### **4.21 Availability and Functionality of Road Infrastructure**

The results on road infrastructure shows that Prince Igbara street was ranked highest with a mean score of 4.40, followed by Hospital road with mean score of 4.33, Poly Road and Court Road came third and fourth respectively with a mean score of 4.18 and 4.16 respectively, while faith way came a distant fifth with a mean score of 3.19, while Kanni road came last with a mean score of 1.75. Respondents' responses in Prince igbara street, Hospital road, Poly road, Court road and Faith-way confirm the availability and functionality of road infrastructure in these streets while those in Kaani Road confirm that road infrastructure provision are inadequate.

#### **4.22 Availability and Functionality of Drainage Infrastructure**

On the availability and functionality of drainage infrastructure in the selected streets. The findings in Table 3 above reveal Drainage infrastructure are available and functional in Poly road, Court road, Hospital road, and Prince Igbara street. The results reveal that poly road enjoys a better drainage with a mean score of 4.31 than all. This is followed by court road with a mean score of 3.76, while hospital road and prince igbara with a mean score of 3.67 and 3.26 came third and fourth respectively. With a mean score of 2.39 and 2.00 for faith-way and kaani road respectively, the result indicated that the drainage conditions in these streets are poor.

#### **4.23 Availability and Functionality of Security**

When respondents were asked to state their opinion on the availability and functionality of security in the six selected streets, the responses indicate that respondents in prince igbara and faith way rated the security of their neighbourhoods as functional with a mean score of 4.16 and 4.00 respectively, followed by residents in poly road with a mean score of 3.82 and hospital road with a mean score of 3.39 while those in Court road and Kaani road with a mean score of 2.51 and 2.04 shows that there is a breakdown of security apparatus.

#### **4.24 Availability and Functionality of Water Supply**

On availability and functionality of water supply, the results reveal that residents in faith way rated water supply in the neighbourhood very high with a mean score of 4.05, followed by residents in poly road with a mean score of 3.51. The study reveal that the landlords provide alternative source of water in their builders to make subscribers who are mainly students comfortable by sinking boreholes as a result of government inability to do so. Responses of the residents of Prince igbara, Faith way, Kaani road, Court road and hospital road with a mean

score of less than 3.00 shows that water supply in the neighbourhood are inadequate and not functional. Our investigation reveals that most of the buildings had no supply of water and the resident had to walk a distance to buy.

#### **4.25 Availability and Functionality of Schools**

On availability and functionality of school, the study indicated that Poly road with a mean score of 4.49, faith way with a mean score of 4.39, and Prince Igbara with a mean of 4.14 all enjoys the availability of schools. The study revealed that these streets enjoys close proximity a tertiary institution – Ken Saro-wiwa Polytechnic and several public and private secondary schools. Hospital road, Kaani Road, Court Road that are far from the Ken Saro-wiwa polytechnic were rated very low.

#### **4.26 Availability and Functionality of Parking Space**

Finally, the result on the availability and functionality of parking space were found to be adequate particularly in faith way with a mean score of 4.47. Findings indicate that this settlement is an entirely new. This was followed by hospital road with a mean score of 3.56. However, with a mean of 2.59 for prince igbara, 2.38 for poly road, 2.69 for court road and 2.02 for kaani road, the findings confirm the inadequacy of parking space.

The results in table 3 above were averaged to get the average weighted mean score of the respective infrastructure in the different streets. The average weighted mean is indicated in table 4 below.

**Table 4: Average Weighted Mean of Locational Facilities**

Name of Street	Road	Drainage	Security	Water Supply	School	Parking Space	AWM
Hospital road	4.33	3.67	3.39	2.83	3.70	3.56	3.58
Poly road	4.18	4.31	3.82	3.51	4.49	2.38	3.78
Prince igbara	4.40	3.26	4,16	2.84	4.14	2.59	3.57
Faith way	3.19	2.39	4.00	4.05	4.39	4.47	3.75
Kaani road	1.75	2.00	2.04	1.17	2.02	2.14	1.85
Court road	4.16	3.76	2.51	2.58	2.69	2.22	2.99

**Legend:** <3.00 = Inadequate >3.00 = Adequate

**Source:** Field Survey, 2019

The results in table 4 above indicate the weighted average mean of the scores of the various locational infrastructures in six selected streets. The result shows that Poly road has the highest level of infrastructural facilities with an average weighted mean score of 3.78, followed by Faith way with an average mean score of 3.75, then Hospital road with 3.58 average mean score and Prince igbara with 3.57. Court road and Kaani road were lowest with an average mean score of 2.99 and 1.85 respectively. This confirms that there is a variation in the various items of infrastructure in the selected streets.

#### **4.3 Rental Trends and Mean of the Various Locations**

Trends in rental values of single room residential properties in the various streets gathered over

a period of five years from 2015 to 2019 were collated and used in the study to analyse variation. Table below presents the results.

**Table 5: Rental Trends from 2015 to 2019**

Name of Street	2015	2016	2017	2018	2019	Average
Hospital road	50,000	55,000	55,000	60,000	60,000	56,000
Poly road	45,000	45,000	50,000	50,000	50,000	48000
Prince igbara	45,000	50,000	50,000	60,000	65,000	54000
Faith way	45,000	45,000	45,000	50,000	50,000	47000
Kaani road	28,000	38,000	30,000	30,000	40,000	31000
Court road	30,000	35,000	35,000	40,000	36,000	36000

**Source:** Field Survey, 2019

The results indicate that there is a variation in the average rental values. As indicated in table 5 above, one can see that residential property values are higher in hospital road is worth an average rent of N56,000, Poly road N48000, Prince Igbara street N54000, Faith way N47000, while, those in Kaani road and Court road is worth N31000 and N36000 respectively. An objective evaluation of these findings referenced in table 3 and 4 confirm that infrastructural provisions are more available and functional in Hospital road, Poly road, Prince Igbara street, and Faith way as compared to inadequate and non-functional infrastructural provisions established in Kaani road, and Court road and therefore confirms to the study circumstance that the above identified infrastructures are indispensable and contributes to the increasing rental value of the residential property types in Hospital road, Poly road, Prince Igbara street, Faith way than as experienced in Kaani road, and Court road.

#### **4.4 Correlation of the Infrastructures and Rental Values in Selected Streets**

The study sought to determine whether there is a statistically significant relationship between the Infrastructures and rental values in selected streets of Bori. The average weighted mean (AWM) scores of the locational facilities and the average mean (AM) scores of rental values of the selected streets in Bori were extracted and tabulated in table 6

**Table 6: Average Scores of Infrastructural Facility and Rental Values**

Name of Street	Average Weighted Mean of Facility Scores	Average Mean of Rental Values
Hospital road	3.58	56,000
Poly road	3.78	54000
Prince igbara	3.57	48000
Faith way	3.75	47000
Kaani road	1.85	31000
Court road	2.99	36000

**Source:** Field Survey, 2019

Table 6 above shows the average mean score and average rental values of the selected streets in Bori.. The results indicate that there is a variation in the average rental values and average facility scores of the selected streets. The relationship between the average rental value and average mean score can best be demonstrated statistically. This was tested using Pearson Product Moment Correlation Coefficient at 95% confidence level and findings presented in Table 6 below:

**Table 7. Pearson's Correlation Analysis**

Variables	$\Sigma X$ $\Sigma Y$	$\Sigma X^2$ $\Sigma Y^2$	$\Sigma XY$	r-cal
Infrastructure (X)	19.52	16.27	917,200	0.914
Rental Value (Y)	272,000	12,822,000,000		

\*\*Correlation is significant at 0.05 levels (2- tailed)

\*Pearson Correlation Sig. (2-tailed)

The findings in Table 6 indicate a r-value of 0.914 which shows a positive relationship between the average scores of infrastructural facilities and average rental values. To check for the validity and reliability of the relationship of the effect of infrastructure on rental value, a test for significance was carried out using the T-test. The T-test result shows that at 0.05 of significance,  $t(cal)=3.88$ , while the  $t(tab)=2.78$ . The decision criterion is that the null hypothesis should be rejected, if the t-calculated value is greater than its critical value, otherwise it should be accepted. Since the calculated value ( $t-cal=3.88$ ) is greater than the critical value( $t-tab=2.78$ ) at 0.05 level of significance, we reject the null hypothesis and conclude that there is statistically significant relationship between between infrastructural provision and rental value in Bori. This findings is in agreement with similary findings by Odudu (2003), observed that rental values tended to peak in those locations that enjoyed one form of infrastructure or the other. It also conform to the findings of Johnson, Davies and Shapiro (2005) that the presence of infrastructure often leads to appreciation in property values while its absence affects neighbourhood properties adversely.

## **5.0 Conclusion**

The study has examined the various infrastructural facilities available in the study location, their functionality and the rent commanded by residential property. It found out that locations like Hospital road, Poly road, Prince Igbara street and faithway enjoy more infrastructure than court road and kaani road. Average rental values of residential properties in Hospital road, Poly road, Prince Igbara and Faithway were all above N45,000 while those in court road and Kaani road that did not enjoy more infrastructure are below N35,000. The findings of the hypothesis revealed that there exist a significant relationship between locational infrastructure and residential rental values in Bori. The positivity of the r-value here means that where infrastructure is functional in a location, the rental value increases. Hence the null hypotheses

formulated were rejected. The study recommends that infrastructural facilities be provided in locations with fewer infrastructures to improve value and encourage movement of people into these locations as an alternative to over-crowding locations with functional infrastructure.

### **Referencing**

- Ajibola, M.O., Awodiran, O.O. and Salu-Kosoko.O. (2013). Effects of Infrastructure on Property Values in Unity Estate, Lagos, Nigeria. *International Journal of Economy, Management and Social Sciences*, 2(5), 195-201.
- Ankeli, A.I, Dabara, D.I, Oyeleke O. O, Guyimu, J and Oladimeji, E.J (2015b). Housing Condition and Residential Property Rental Values in Ede Nigeria. *International Journal of Arts & Sciences*, 8(1), 53–61
- Ankeli A. I, Dabara D.I, Gambo, M. D and Lawal K. O(2016) Residential Housing Rental Values And Infrastructural Development In Osogbo, Nigeria. *Conference of the International Journal of Arts & Sciences*, 9(1), 29–40
- Babarinde, J. A. (1998), Analysis of Industrial Relocation in Relation to Housing and Infrastructural Services in Metropolitan Lagos. *The Lagos Journal of Environmental Studies*, 1 (1), 97-108.
- Bello, I. K, Adeniji, W and Arowosegbe, O. S (2013): The effects of urban infrastructural development on property value. *Merit Research Journal of Art, Social Science and Humanities*, 3(3), 35-40.
- Burgess, E. W. (1925). *The Growth of the City* in Park, R. E. et al. *The City*: University of Chicago Press.
- Famuyiwa, F., and Otegbulu, A. C. (2012). Public water infrastructure in property prices: an environmental valuation approach. *Elixir Infrastructure Management Journal*, 51, 11034-038.
- Fulmer, J. (2009). What in the world is infrastructure. *PEI Infrastructure investor*, 1(4), 30-32.
- Ibrahim, T. A (2013) .The impact of location on property values and business development in Ilorin Metropolis, Nigeria *International Journal of Current Research*. 5,(10), 2735-2738,
- Ihuah, P.W. and Benebo, A. M. (2014), An Assessment of the Causes and Effects of Abandonment of Development Projects on Property Value in Nigeria, *International Journal of Research in Applied, Natural and Social Sciences*, 2( 5), 25-36
- Ihuah, P W, Ekenta, C and Nwokorie, B.(2014). Impacts Of Inadequate Infrastructures Provision On Real Property Value: A Comparative Study Of Agbama And Ehimiri Housing Estate, Umuahia, Nigeria. *International Journal of Environment, Ecology, Family and Urban Studies (IJEEFUS)* , 4,( 4), 9-20
- Johnson, T., Davies, K. and Shapiro, E. (2005) . *Modern Methods of Valuation of Land, Houses and Buildings*. , London: Estate Gazette.
- Keeble, L. (1969), *Principles and Practice of Town Planning'* London : Estate Gazette Limited.



- Kiel, K. A., and Zabel, J. E. (2008). Location, location, location: The 3L Approach to house price determination. *Journal of Housing Economics*, 17(2), 175-190.
- Nubi, T.O (2003). 'Procuring, Managing and Financing Urban Infrastructure: Towards an Integrated Approach' Land Management and Property Tax Reform in Nigeria, In `Omirin et al. (ed.) Department of Estate Management, University of Lagos, Akoka.
- Nwuba, C.C and Salawu, B.M (2010): Planned and integrated approach to maintenance of urban infrastructure in Nigeria. *Environ-Tech, Journal of the College of Environmental Studies, Kaduna Polytechnic, Kaduna, Nigeria*, 1( 1), 1-19.
- Odudu, C. (2003). Significance of Infrastructure in Determining Land and Rental Values in an Urban Area-The Case of Lagos Metropolis. Land Management and Property Tax Reform in Nigeria- Proceedings of a National Workshop organized by the Department of Estate Management, University of Lagos, Nigeria.
- Olajide, O. (2010). *Urban poverty and environmental conditions in informal settlements of Ajegunle, Lagos Nigeria*. Retrieved from: [https://www.programm.corp.at/cdrom2010/papers2010/CORP2010\\_148.pdf](https://www.programm.corp.at/cdrom2010/papers2010/CORP2010_148.pdf)
- Oni, A.O. (2007). A Study of the Accessibility and Connectivity of Ikeja Arterial Roads, *Journal of Land Use and Development Studies*. 3(1), 108-122
- Patunola-Ajayi, B.J (2013): Infrastructure Development and Economic Empowerment. A paper presented at the 43rd Annual Conference held in Benin, Edo. 12th – 16th March
- Saunders, M., Lewis, P., and Thornhill, A. (2009), *Research Methods for Business Students*, Fourth Edition. Essex: Person Education Limited.
- Udoka, I.S. (2013). The Imperatives of the Provision of Infrastructure and Improved Property Values in Nigeria. *Mediterranean Journal of Social Sciences*, 4(15), 21-33.
- The Longman online dictionary. (2014). Retrieved from: <http://www.ldoceonline.com/spellcheck/?q=%ednfrasturcture>
- United Nations (2002), A United Nations Report on Human Settlement: The Changing Shelter Policies in Nigeria,, Retrieved from: [www.un-habitat.org](http://www.un-habitat.org).



# Corporate Foresight and Organizational Resilience of Oil and Gas Companies in Nigeria

Chijioke K. Mama<sup>1</sup> and Kemi A. Alagah (Ph.D)<sup>2</sup>

<sup>1</sup>Department of Management, Faculty of Management Sciences University of Port Harcourt, Nigeria | Email: [chijioke.mama@yahoo.com](mailto:chijioke.mama@yahoo.com) | Phone: +2347061013333

<sup>2</sup>Department of Management, Faculty of Management Sciences University of Port Harcourt, Nigeria | Email: [alagahk@gmail.com](mailto:alagahk@gmail.com) | Phone: 08054274593

---

**Abstract:** *This study examined the relationship between Corporate Foresight and organizational Resilience. The predictor variable Corporate Foresight was dimensioned by Scope of Scanning, while Resilience was measured by Adaptive Capacity and Robustness. This study was completed as a cross sectional survey on a population that comprised of 190 Senior Management level staff (Unit heads and equivalent) of oil and gas companies in the six Nigerian states of Rivers, Delta, Bayelsa, Edo, Akwa Ibom and Cross Rivers. Purposive sampling and simple random sampling were used to select the samples. Quantitative data was collected through the use of questionnaires as survey instrument. Exploratory factor analysis was carried out on the instrument, while reliability test was equally executed to access instrument's consistency. The adjusted size of the sample was 152 senior management staff, determined by using the Krejcie and Morgan's sample size determination formula. Quantitative data obtained from 122 valid questionnaires returned, were analyzed using the Statistical Program for Social Sciences and Amos. Descriptive statistics was used to analyze the data, while Structural Equation Modeling was used as the inferential statistic tool for testing the research hypotheses. Findings show that corporate foresight (scope of scanning) has positive significant relationship on resilience. The study recommends that oil and gas companies in Nigeria should adopt appropriate corporate foresight practices to build resilience, to survive and remain profitable in a turbulent business setting.*

**Keywords:** *Corporate foresight, scope of scanning, robustness, adaptive capacity, organizational resilience, oil and gas*

---

## 1.0 INTRODUCTION

The recent proliferation of management research around the resilience phenomenon has been credited to several pioneering research works. Linnenluecke (2017) insightfully highlights the seminal works of Straw *et al.*, (1981) and Meyer (1982), while Olivos (2014) point to the groundbreaking research "Resilience and Stability of Ecological Systems" by Holling in 1973. With respect to more certain, more predictable and less dynamic business environments; business leaders and decision makers normally rely on experience and a knowledge-based view of organizations for leading, directing, controlling and staffing organizations. But the recent

emergence of numerous disruptive forces in the business environment, coupled with a growing complexity in the structure of organizations, have motivated management practitioners; to search for new paradigms and concepts that will enhance organizations' ability to surmount challenges and thrive. One such paradigm is the organizational resilience phenomenon. Southwick *et al.*, (2014) are of the opinion that, although we have slight distinctions in the perception of the resilience construct across disciplines, there exists a seeming multidisciplinary unanimity that resilience includes "a concept of healthy, adaptive, or integrated positive functioning over the passage of time and in the aftermath of adversity. Relatedly, available evidences now support the growing worry that *conventional* oil resource is fast disappearing, which suggest that petroleum will continue to be found in tougher terrains such as deep offshore and ultra-deep offshore locations. This necessitates the acquisition of resilience capabilities by oil and gas companies. On the other hand, Corporate Foresight permits firms to build strong foundations for future competitive advantage (Rohrbeck, Battistella & Huizingh, 2015). The inherent competitive advantage of corporate foresight makes it a critical subject for modern day organizations. According to Oner and Beser (2011) corporate foresight permits preparation for diverse challenges with adequate lead-time. Neef and Daheim (2005) contend that businesses carry out corporate foresight to reduce uncertainty by detecting new and relevant trends; prepare strategic decisions; champion innovations processes and create/nurture new businesses. Foresight primarily aims to arm the organization against disruptions in areas such as science, strategy or technology as well as to harness benefits (Becker, 2002). The quest to establish any potential correlation between foresight and resilience has necessitated this study; because empirical evidence will be required to affirm such correlation. The high risk, high uncertainty, and unconventional nature of work/work environments; that is prevalent in the petroleum sector require resilience, as an important capability. In Nigeria the macroeconomic business milieu is ridden with uncertainties that are characteristic of emerging economies, and others uncertainties that are typical/specific to the petroleum sector in Nigeria. Policy shocks, political uncertainties and insecurity are some notable challenges in the Nigerian macroeconomic environment that requires resilience.

## **2.0 LITERATURE REVIEW**

### **2.1 Scope of scanning**

Scope of scanning as a sub-construct measures, the form and extent of environmental scanning performed by firms as elements of foresight practices. Yasai-Ardekani and Nystrom (1996) defined "scope of scanning" as the spectrum of unique environmental aspects that is monitored in scanning programs/campaign. Scope in scanning is essential since the act of environmental observance is widely accepted as an applied method in foresight, according to Conway and Stewart (2005). A company's environment comprises of the relevant social and physical factors that reside within and beyond its boundary (Duncan, 1972 as cited in Mayer, Steinecke & Quick, 2011). Environmental scanning equally comprises of a surveillance tool for observing the external environment, according to Wong, Sit, Sultan, Li and Hung (2015). According to Aguilar (as cited in Mayer *et al.*, 2011) the main function of environmental observance is to consciously gather, properly interpret and prudently use pertinent information

relating to events, incidences and interactions in those implicated environments. Furthermore, evidences in literature suggest that scope of observance differs among all firms; this influences the potential dynamics of foresight within firms. Empirical evidence shows that high-performing companies carry out more frequent scanning, use wider information acquisition techniques, and achieve a fit between the scanning process and their organizational peculiarities (Daft *et al.*, 1988; Sawyerr, 1993; Yasai-Ardekani & Nystrom, 1996 as cited in Rohrbeck, 2011). A wider scope of scanning will deliver greater information and richer foresight for the firm. The observation by Zhang, Majid and Foo (2015) that “organizations have to closely monitor their task and remote environments, and use the acquired environmental information to assist in tactical and strategic decision making” further confirms the assertion that a close monitoring (which may imply wider scope of observance) may deliver more benefit than a narrow scope and vice versa.

Regarding the scope and kind of scanning in corporate foresight practices, we see that the scanning act is not a monolithic activity because environmental scanning entails the dual acts of “looking at” information (mostly reviews of data available) as well as “looking out” for data/information (scouting for unavailable data or clues); and this searching may stand as competitor intelligence gathering, market analysis among others forms of scanning behaviours (Choo, 1999).

In addition, Zhang *et al.*, (2011) also stated that environmental observance is proving to be needed and to be of great import in all scenarios. Riding on the above statements and conceptualizations, this study agrees that scanning is a corporate foresight activity, and it's appropriate to say that the “scope of scanning” implemented sufficiently measures the presence, maturity and adequacy of corporate foresight. This understanding, as well as, a reference to the work of Rohrbeck (2011) which utilized scanning scope as a corporate foresight dimension has informed the decision to apply “scope of scanning” for this research on corporate foresight.

## **2.2 The concept of Organizational Resilience**

### **2.2.1 Robustness**

Resilience was measured in this research using robustness as a sub-construct. Robustness measures the organization's ability to filially continue on its part both during, as well as, after crises or catastrophe. The principal objective of organizational robustness is the retention and preservation of its current structure and existing function amidst disruption. Studies suggest that the firm's ability to retain structure in crises is very critical since it confers resilience on systems via the proper control of the initial functions, without compromising internal structure (Pavard, Dugdale, Saoud, Darcy & Salembier, 2008). According to Pavard, Dugdale, Saoud, Darcy and Salembier (2008), “The terms robustness and resilience are often used interchangeably and are very broadly interpreted to mean the ability of a system to remain stable and function correctly in unforeseen environmental conditions”. Robustness describes organizational stability and constancy, as well as, the disposition to retain “intact structure” and low deviation amidst crises and challenges (Maurer & Lechner, n.d). Robustness and resilience are complementary concepts (Dugdale & Pavad, 2010) and organizational robustness is widely

considered and used as a good measure of organizational resilience. When confronted with crises or disaster, organizations typically come under diverse kinds of pressure that threaten existing structure and function and which can undermine its ability to respond appropriately. Therefore, organizational robustness theorist postulate that structure alteration and function deviation in crises/challenges is inimical to firm competitiveness and even firm survival. Robust organizations are fundamentally capable of creating reliably strong systems that remain undeformed in function and structure when challenged; this is important, if one considers the great amounts of real and potential disruptions that face organizations today. Since traditional response mechanisms may be compromised in moments of crises, robustness theorist postulate that post crises functional and structural integrity depict the magnitude of resilience present in an organization. The connection between resilience and robustness is widely established, notably in the work of Anderis, Walker and Ostrom (2013); which explored the nexus between resilience, robustness and enterprise sustainability status, in addition to their collective influence. Furthermore, Heinemann, (2018) in discussing “resilience management” within physical and biological systems identified robustness as a strategic factor of resilient bodies, consequently defining robustness as “a pre-event strategy to identify system designs that perform well when facing variations in conditions of use

### **2.2.2 Adaptive capacity**

Gorley (2012) registered the need to view adaptive capacity as a continuous learning activity and not some set of skills. Wybo (2012) is of the belief that “adaptive resilience corresponds to the ability of the organization (at any level) to keep achieving its tasks by adapting its functioning to hazardous situations, uncertainty, time pressure and threats”.

The connection or link between adaptive capacity and competitiveness is evident in several earlier studies. Hendricks (2018) stated that adaptability implies; how quickly organizations adjust their plans and how they improvise to reach stated targets. Therefore it's perceived as a very essential factor for competitive advantage. Reeves and Deimler (2011) also noted that it may no longer be attainable for firms to create competitive advantage solely from their industry position, scale, and first-order capabilities: rather managers are finding that it stems from some other firm abilities such as “Adaptability”. The relevance of adaptive capacity in present day organizations is accentuated by the growing degree of environmental dynamism, which places all organizations large and small at similar or equal risk of being disrupted by change. With so much change happening in business environments; adaptability scholars' content that building long term capabilities, may be of inferior importance, presently; when juxtaposed with adaptability as a capacity. Adaptive capability as operationalized by Lee *et al.*, (2013) is thereby adopted as the measure of resilience”.

### **2.3 Objectives of the study**

- a) To examine the relationship between scope of scanning and robustness
- b) To determine the relationship between scope of scanning and adaptive capacity

### **2.4 Research Hypotheses**

**H<sub>01</sub>:** There is no significant relationship between scope of scanning g and robustness of oil and gas firms in Nigeria

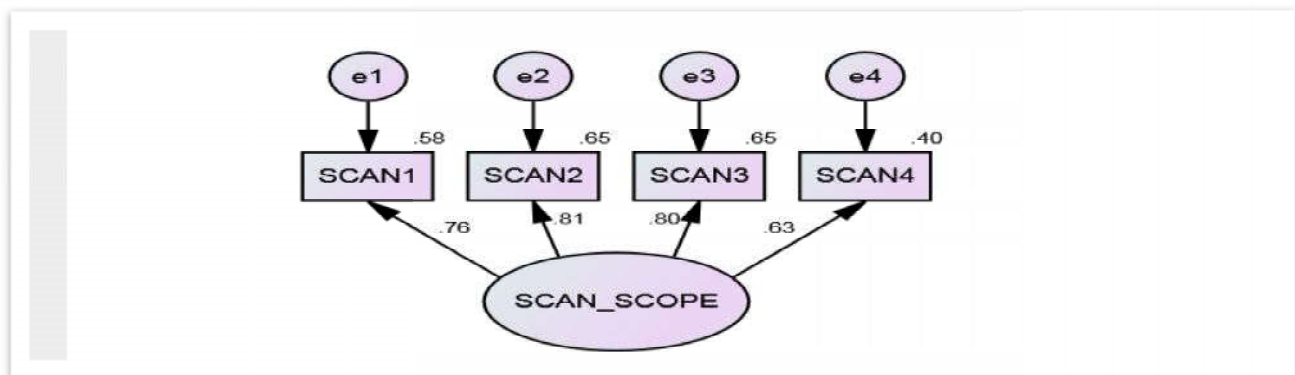
**H<sub>02</sub>:** There is no significant relationship between scope of scanning and adaptive capacity of oil and gas firms in Nigeria.

### 3.0 RESEARCH METHODOLOGY

A quasi-experimental research design was used for the study. Cross sectional survey was carried out with the aim of investigating the relationship between corporate foresight (scope of scanning as its dimension) and organizational resilience (resilience measured by robustness and adaptability) of oil and gas companies in Nigeria. The study population consisted of 190 senior managers and unit heads of 36 oil and gas companies covering upstream, midstream and downstream companies. Sampling was done using both purposive and random sampling techniques. Out of this accessible population, a sample was drawn using the Krejcie and Morgan sampling formula which yielded a sample size of 152 respondents. Survey data was collected through questionnaire. The predictor variable scope of scanning was adapted from the work of Rohrbeck (2011). One measure of the criterion variable adaptive capacity was adapted from the work of Lee *et al.*, (2013), while the other measure robustness was adapted from the work of Kantur and Iseri-say (2015). All variables were measured based on the 5 point liker scale. The study instrument was duly subjected to a test of reliability using the Cronbach Alpha test, with results obtained meeting or exceeding the 0.7 Cronbach Alpha value considered a threshold by Nunnally, (1978). Principal Component Analysis (PCA) was used to determine the eigenvalues of the items, which was used to ascertain the contribution of each statement. Inferential statistics carried out on the data collected was done with Structural Equation Modeling (SEM) and the outputs was deployed to test the hypotheses and predict the relationship between the two main constructs of scope of scanning and organizational resilience.

### 4.0 RESULTS AND DISCUSSION

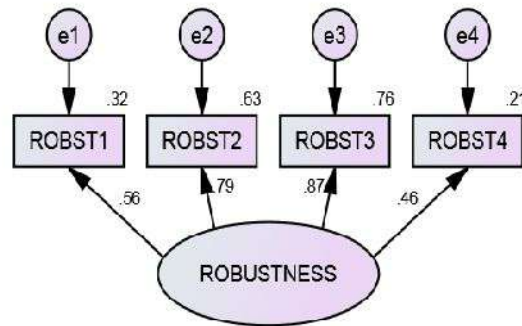
**Figure 1.0:** Measurement Model of Scope of scanning



**Table 1.0:** Measurement Model Analysis of Scope of scanning

Model	Chi square significance	GFI	NFI	CFI	RMSEA	VARIABLE	FACTOR LOADINGS	SQUARED MULTIPLE CORRELATION
SCOPE OF  SCANNING	(2df)=3.898  p=0.142  CMIN/DF=1.949	0.983	0.980	.990	0.080	SCAN 1	0.763	0.581
						SCAN 2	0.808	0.653
	Acceptable Limits=>	0.900	0.900	0.950	0.080	SCAN 3	0.804	0.646
						SCAN 4	0.629	0.395

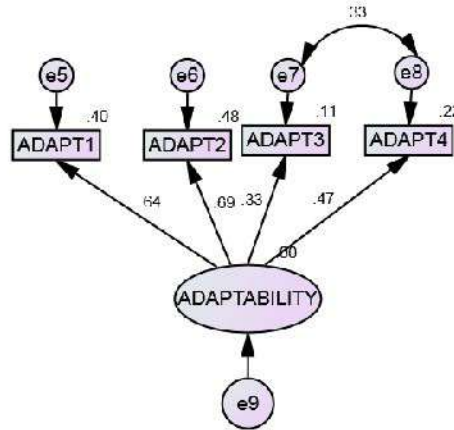
**Figure 2.0:** Measurement Model of Robustness



Model	Chi square significance	GFI	NFI	CFI	RMSEA	VARIABLE	FACTOR LOADINGS	SQUARED MULTIPLE CORRELATION
ROBUST NESS	(2df)=.496  p=0.436  CMIN/DF=.248  ACCETABLE LIMIT>>>	.998	.996	1.000	.0.000	ROBST 1	0.562	.316
						ROBST2	0.794	.631
		0.90	0.90	0.95	0.08	ROBST3	0.870	.756
						ROBST4	0.457	.209

**Table 2.0 Measurement Model Analysis of Robustness**

Figure 3.0: Measurement Model of Adaptive capacity



Model	Chi square significance	GFI	NFI	CFI	RMSE A	VARIABLE	FACTOR LOADING S	SQUARED MULTIPLE CORRELATION
FIRM ADAPT IVE CAPAC ITY	(1df)=1.133	0.99	0.984	.99	0.033	ADAPT 1	.635	.404
	p=0.287	5		8		ADAPT2	.691	.477
	CMIN/DF=1.133					ADAPT3	.333	.111
	ACCETABLE LIMIT	0.90	0.90	0.9	0.08	ADAPT4	.474	.225

Table 3.0 Measurement Model Analysis of Adaptive Capacity



Figure 4.0 Structural Model of Scope of scanning and Robustness

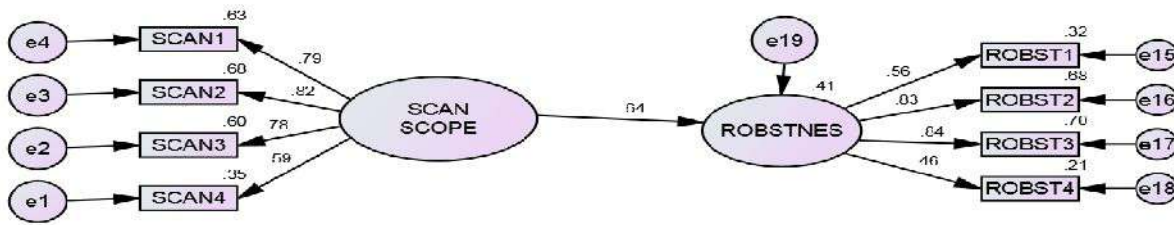
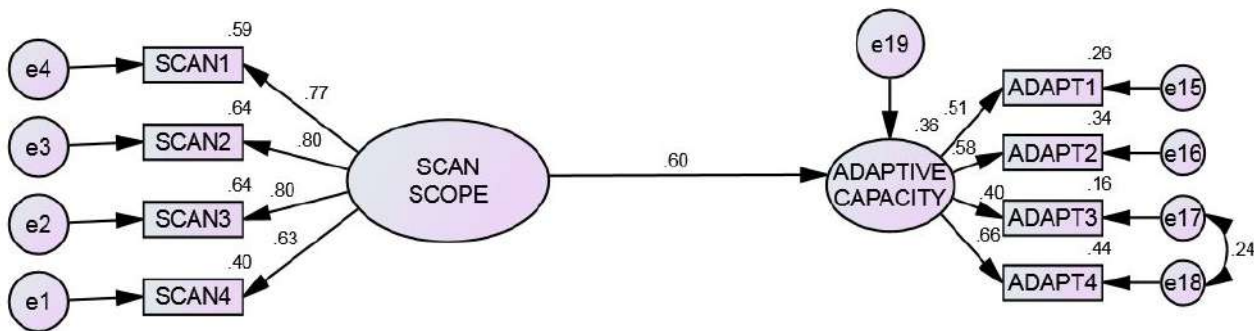


Figure 5.0 Structural Model of Scope of scanning and Adaptive capacity



### Test of Hypothesis

**H<sub>01</sub>- There is no significant relationship between Scope of scanning and Robustness**

Table 4.0: Result of standardized and unstandardized regression estimate of the model

Regression Weights	0.646
Standardized Regression Weight( $\beta$ )	0.642
Squared Multiple correlation ( $R^2$ )	0.413
Critical Ration (CR)	4.205
p-value	0.000<0.05

Model parameters: (Standardized Regression Weight ( $\beta$ )= 0.642; Squared Multiple correlations ( $R^2$ ) =41.3%, p-value = 0.000<0.05). This means that When **Scope of scanning** goes up by 1 standard deviation, **firms Robustness** goes up by 0.642 standard deviations. Thus an increase in corporate foresight in terms of Scope of scanning results also in in an increase in organizational resilience (as indicated in firm's Robustness). That scope of scanning explains 41.3% variability in firms' Robustness that is to say that the predictors of **ROBUSTNESS** explain 41.3 percent of its variance.

**H<sub>02</sub>- There is no significant relationship between scope of scanning and adaptive capacity**

**Table 4.1**

Regression Weights	0.658
Standardized Regression Weight( $\beta$ )	0.596
Squared Multiple correlation ( $R^2$ )	0.355
Critical Ration (CR)	3.473
p-value	0.000<0.05

Model parameters: (Standardized Regression Weight ( $\beta$ )= 0.596; Squared Multiple correlations ( $R^2$ ) =35.5%, p value = 0.000<0.05). This means that When **SCAN\_SCOPE** goes up by 1 standard deviation, **ADAPTIVE\_CAPACITY** goes up by 0.596 standard deviations. Thus an increase in corporate foresight in terms of scanning scope also results in an increase in organizational resilience (as indicated in firm's adaptive capability).

#### **Interpretation of results and discussion of finding**

For hypothesis H<sub>01</sub>: Given that the model fit results shown above have confirmed that the structural model used in the analysis was fit enough in representing the relationship between the data and the hypothesized relationship, and based on the fact that model parameters: ( **$\beta$  =.642,  $R^2$ =41.3%; p=0.000<0.05**); indicate that a positive and significant relationship exists between the scope of scanning used by firms and organizational resilience (Robustness.) These empirical results do not support the Null hypothesis three (H<sub>03</sub>) which states **There is no significant relationship between scope of scanning and robustness**. The study concludes that a significant and positive relationship exist between an organization's scope of scanning and its robustness.

For the second hypothesis (H<sub>02</sub>): The model fit results shown above confirmed that the structural model used in the analysis was fit enough in representing the relationship between the data and the hypothesized relationship. The results of the structural modeling carried out above have the following parameters: ( **$\beta$  =.596,  $R^2$ =35.5%; p= 0.00<0.05**); indicating that a positive and significant relationship exists between the scope of scanning of firms and firms adaptive capacity. These empirical results do not support the Null hypothesis one (H<sub>01</sub>) which states that **There is no significant relationship between scope of scanning and adaptive capacity**. Rather, this study asserts that a corporate foresight (measured using firms' scope of scanning) has a positive and significant effect on firm's adaptive capacity.

#### **5.0 CONCLUSIONS**

The study provided valuable evidence with respect to how oil and gas companies can enhance their resilience capabilities through foresight practices. Thus, by utilizing a wide scope of scanning in an unstable business environment, organizations are able to detect trends (opportunities and threats) which will enhance their resilience. Effective scope of scanning may

include; analyzing the far future, looking into the fine details of emerging trends and scanning wider areas of the organization's environment, including areas and aspects that do not connect with the business, but which may nevertheless have unseen impacts.

### **5.1 Recommendations**

Foresight capability is essential within Nigerian Oil and Gas companies; consequently organizations in this sector should strive to create and adopt a scanning scope that is reflective of their unique environment, their organizational capabilities and challenges.

### **5.2 Contribution to Knowledge**

This study has provided valuable evidence on the practical managerial importance of corporate foresight and its relevance in building resilient organizations in the often turbulent Nigerian oil and gas sector.

## **REFERENCES**

- Anderies, J., Walker, B., Ostrom, E., & Folke, C. (2013). *Aligning key concepts for global change policy: robustness, resilience, and sustainability*. Retrieved from [https://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/8063/CSID\\_WP\\_2012-002.pdf?sequence=1&isAllowed=y](https://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/8063/CSID_WP_2012-002.pdf?sequence=1&isAllowed=y)
- Choo, C. (1999). *The Art of scanning the environment*. Bulletin of the American Society of Information Science. Retrieved from <http://choo.fis.utoronto.ca/fis/respub/asisbulletin/ASISbulletinES.pdf>
- Conway, M., & Stewart, C. C. (2005). *Creating and sustaining foresight in Australia: a review of government foresight*. Melbourne, Australia, Swinburne Press. Retrieved from [https://pdfs.semanticscholar.org/fb11/5bd24e4886fe6046229ce3cfac2ee5fb2406.pdf?\\_ga=2.156002427.1524112381.1571071078-1349643090.1568367220](https://pdfs.semanticscholar.org/fb11/5bd24e4886fe6046229ce3cfac2ee5fb2406.pdf?_ga=2.156002427.1524112381.1571071078-1349643090.1568367220)
- Gorley, C. (2012). *Adaptive Capacity as a Proactive Approach*. (Doctoral dissertation, Fielding Graduate University, Santa Barbara, California) Retrieved from [https://www.researchgate.net/publication/308093747\\_Adaptive\\_Capacity\\_as\\_a\\_Proactive\\_Approach](https://www.researchgate.net/publication/308093747_Adaptive_Capacity_as_a_Proactive_Approach)
- Heinimann, H. (2018). *Robustness and configurability: Key concepts to build resilience*. IRGC resource guide on resilience, 2. Retrieved from <https://beta.irgc.org/wp-content/uploads/2018/12/Heinimann-for-IRGC-Resilience-Guide-Vol-2-2018.pdf>
- Lee, A. V., Vargo, J., & Seville, E. (2013). Developing a tool to measure and compare organizations' resilience. *Natural Hazards Review*, 14(2), 29-41.
- Maurer, F., & Lechner, U. (n.d). *The object of organizational robustness and resilience: an content analysis*. Retrieved from [http://host.uniroma3.it/eventi/urbe/abstracts/111\\_urbe\\_abs.pdf](http://host.uniroma3.it/eventi/urbe/abstracts/111_urbe_abs.pdf)
- Mayer, J., Steinecke, N., & Quick, R. (2011). Improving the applicability of environmental scanning systems: State of the art and future Research. *Governance and Sustainability*, 366(3), 207-223
- Nunnally, J. C., & Bernstein, J. H. (1994). *Psychometric Theory* (3rd Ed.) New York: McGrawHill

- Pavard, B., Dugdale, J., Saoud, N., Darcy, S., & Salembier, P. (2008). *Underlying concepts in robustness and resilience and their use in designing sociotechnical systems*. Retrieved from <https://www.researchgate.net/publication/241137999>.
- Reeves & Deimler (2011). Adaptability the new competitive advantage. *Harvard Business Review*. Retrieved from <https://hbr.org/2011/07/adaptability-the-new-competitive-advantage>
- Rohrbeck, R. (2011). Corporate foresight: towards a maturity model for the future orientation of a firm. Berlin, Germany: Springer-verlag.
- Wong, H. Y., Sit, J. K., Sultan, P., Li, E., & Hung, J. (2015). *Environmental scanning – an information system framework for strategic decisions in SMEs: a case study analysis*. Retrieved from [https://www.researchgate.net/publication/292508622\\_Environmental\\_scanning\\_\\_an\\_information\\_system\\_framework\\_for\\_strategic\\_decisions\\_in\\_SMEs\\_A\\_case\\_study\\_analysis](https://www.researchgate.net/publication/292508622_Environmental_scanning__an_information_system_framework_for_strategic_decisions_in_SMEs_A_case_study_analysis)
- Wybo, J. (2012). *The Role of simulation exercises in the assessment of robustness and resilience of private or public organizations*. NATO Science for Peace and Security Series, 6. Retrieved from <https://hal-mines-paristech.archives-ouvertes.fr/hal-00569839/document>
- Yasai-Ardekani, M., & Nystrom, P. (1996). Designs for environmental scanning systems: Tests of a contingency theory. *Management Science*, 42(2), 187-204
- Zhang, X., Majid, S., & Foo, S. (2015). Environmental scanning: An application of information literacy skills at the workplace. *Journal of Information Science*, 36 (6), 719–732



## **Skill Variety and Employee Withdrawal Behaviour in Telecommunication Firms in Port Harcourt, Nigeria**

**Gabriel Odey Okache**

Department of Management, Faculty of Management Sciences, Rivers, State University,  
Nkpolu-Oroworukwo, PMB 5080, Port Harcourt, Nigeria

---

**Abstract:** *This study investigated the relationship between skill variety and employee withdrawal behaviour in telecommunication firms in Port Harcourt, Nigeria. The study adopted a cross-sectional survey in its investigation of the variables. Primary data was generated through self-administered questionnaire. The population for the study was 248 administrative and management employees of 8 selected telecommunication companies in Port Harcourt. The sample size of 153 was determined using calculated using the Taro Yamane's formula for sample size determination. The reliability of the instrument was achieved by the use of the Cronbach Alpha coefficient with all the items scoring above 0.70. The hypotheses were tested using the Spearman's Rank Order Correlation Coefficient with the aid of Statistical Package for Social Sciences version 23.0. The tests were carried out at a 95% confidence interval and a 0.05 level of significance. Results from analysis of data revealed that there is a significant relationship between skill variety and employee withdrawal behaviour in telecommunication firms in Port Harcourt, Nigeria. The study recommends that in implementing the strategy of job enrichment as a means of motivation for workers, management should ensure that skill variety are apportioned in a manner that will bring about the retention of especially high flying staff. Therefore, management should utilize skill variety optimally so that the staff will not also perceive the load as too complex or complicated to handle.*

**Keywords:** *Skill Variety, Employee Withdrawal Behaviour*

---

### **INTRODUCTION**

There are numerous hours of lost productivity each year adversely affecting organizations and creating a burden on enterprises (Strom, Sears & Kelly, 2014). The most common forms of employee work disengagement are withdrawal behaviors, which manifest as absenteeism, employee turnover, tardiness, and burnout (Timms, Brough & Graham, 2012). Organizational leaders depend on a skilled, stable and diverse workforce to remain viable in a competitive marketplace (Banks, Patel & Moola, 2012). Withdrawal behaviors are challenging for organizational leaders as well as other co-workers (Johnson, Holley, Morgeson, LaBonar & Stetzer, 2014). Absenteeism disrupts teams, superior-subordinate relationships, and group dynamics. Although the literature regarding workforce absenteeism is capacious, there are

significant gaps (Johnson, Holley, Moregeson, Labonar & Stetzer, 2014). Literature scarcities include absence management, which is managing absence behavior and the association between employee behavior and key stakeholders (Johnson et al., 2014). Judicious attendance at work with the correct quantity of competent employees in place to meet business requirements is vital for sustainable and scheduled business activities (Torre, Pelagatti & Solari, 2014). Skill variety is a crucial job characteristics needed to ensure the attainment of these business requirements.

Today's organizations use standardization, automatization and technology to gain efficiency in production. The way in which work is organized has implications, which can often be lower levels of task variety (Loukidou *et al.*, 2009). According to the job design literature (Demerouti *et al.*, 2001; Humphrey *et al.*, 2007), low levels of task variety reflect a lack of work stimulation. The influence of job design on employees' attitudes and well-being has been studied widely. It is also the case that employees may not want to simply accept unsatisfactory job design. Thus, research has also increasingly recognized the need to explore employees' behavioral reactions when coping with unsatisfactory and unstimulating job designs (Oldham and Hackman, 2010; Wrzesniewski and Dutton, 2001). Some of these behaviors may have dysfunctional implications for organizations (Spector and Fox, 2010).

In the view of Garg & Rastogi (2006), skill variety refers to the extent to which the job requires the employee to draw from a number of different skills and abilities as well as upon a range of knowledge (cited in Ali, 2010). According to Benjamin (2012) the theory behind providing skill variety in job design is that it will reduce boredom, thereby increasing job satisfaction and motivation. This is likely to be true as long as the employee enjoys the skills and perceives the addition and mix of skills to be a benefit to the job. But adding a variety of skills the employee finds stressful, isn't qualified to address, or simply adding basic duties and minimal skills without adding to the intrinsic value of the job could actually have the opposite effect and increase dissatisfaction. Involve employees in job design to have the greatest positive impact on motivation and satisfaction.

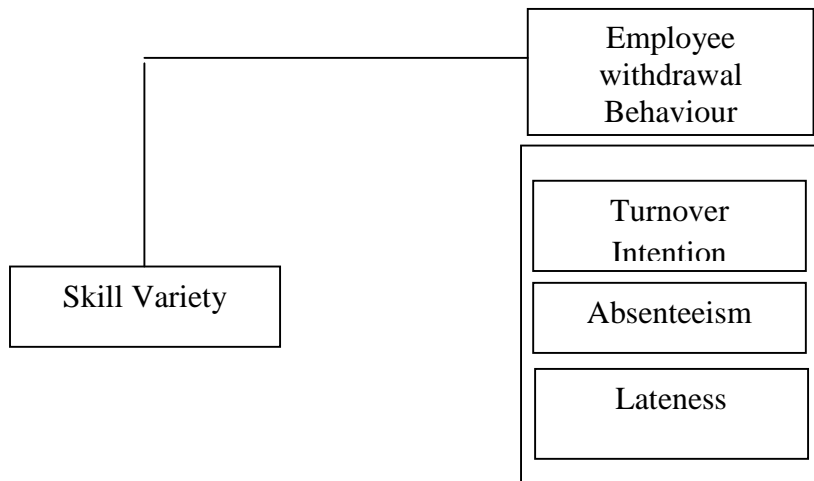
In other studies, skill variety is considered as the number of various task elements that are necessary for the job fulfilment. Task variety communicates clarity of knowledge (Pentland, 2003). According to the literature of careers, employees at the start of their careers make attempts to discover tasks from which they attain or achieve their goals (Feldman & Thomas, 2012). Inherent characteristics of a job including significance of a task and skill variety are usually mostly associated with low rates of absenteeism (Taber & Taylor, 1990).

This study therefore examines the relationship between skill variety and employee withdrawal behaviour in telecommunication firms in Port Harcourt.

Furthermore, this study was guided by the following research questions:

- i. To what extent does skill variety influence turnover intention in the telecommunication firm?
- ii. To what extent does skill variety influence absenteeism in the telecommunication firm?

- iii. To what extent does skill variety influence lateness in the telecommunication firm?



**Fig.1:** Conceptual Framework for the relationship between skill variety and employee withdrawal behaviour

**Source:** Author's Desk Research, 2019

## LITERATURE REVIEW

### Theoretical Foundation

The study is anchored on enriched job characteristics theory postulated by Hackman and Oldham. The theory was built on the previous knowledge and research, mainly coming from Need Hierarchy Theory, Expectancy Theory, Herzberg Two-Factor theory (Garg & Rastogi, 2006) and using also an earlier work by Turner and Lawrence (1965) about task attributes. This theory assumed that the main approach to job enrichment is based on the job characteristics, which offer motivation, satisfaction, commitment, involvement, performance quality, and withdrawal behaviours such as absenteeism and turnover are a function of three critical psychological states which are experienced: meaningfulness, responsibility for outcomes, and knowledge of results (Grant & Shin, 2011 and Lawler *et al.*, 2009).

This theory proposes that the job itself should be designed to possess certain characteristics that create conditions for high work motivation, satisfaction, performance involvement, and commitment. It identifies the task condition in which individual is predicted to prosper in their work. The theory gives the management the insight that employee effectiveness can be enhanced by enriching the jobs with high levels of key characteristics and making sure those employees with appropriate personal qualities are assigned to these jobs. In today's competitive business world, every organization is aspiring to have committed and

motivated workforce who are passionate about carrying out set tasks and committed to achieving organizational objectives. The reason for using the job enrichment theory is that it proposes that a job should be designed to possess certain characteristics that create conditions for high work motivation, satisfaction, performance involvement, and commitment; and identifies the tasks condition in which individual is predicted to prosper in their work.

### **Skill Variety**

This is the first core job dimension which involves the number of different types of skills that are used in performing a task. It focuses on the degree to which a task challenges the job holder to use different kind of skills, abilities and talents. It is believed that when only one skill is adopted in performing tasks repetitively, it tends to bring fatigue, stress and boredom which will in turn affect their morale and productivity at workplace. Derek and Laura (2000), argued that movement of employees from one job to another job within a particular organization and allowing them to adopt a variety of tasks in their work helps in avoiding repetitiveness, dullness and boredom. Several researchers added that the use of skill variety serves as a means of retaining and motivating workers for higher performance. Bratton (2007), also pointed that when a variety of skills are necessary to complete a task and those skills are perceived to be of value to the organization, employees find their work to be more meaningful. Garg & Rastogi (2006), Skill variety refers to the extent to which the job requires the employee to draw from a number of different skills and abilities as well as upon a range of knowledge (cited in Ali,2010). The theory behind providing skill variety in job design is that it will reduce boredom, thereby increasing job satisfaction and motivation. This is likely to be true as long as the employee enjoys the skills and perceives the addition and mix of skills to be a benefit to the job. But adding a variety of skills the employee finds stressful, isn't qualified to address, or simply adding basic duties and minimal skills without adding to the intrinsic value of the job could actually have the opposite effect and increase dissatisfaction. Involve employees in job design to have the greatest positive impact on motivation and satisfaction.

Skill variety involves the number of different types of skills that are used to do a job. This area is important because using only one skill to do the same task repeatedly can be quite boring, typically causing the employee's productivity to decrease after a period of time. However, using a variety of skills in a job will tend to keep the employee more interested in the job and more motivated. One way businesses are focusing on this area is through job rotation, that is, moving employees from job to job within the company, thereby allowing employees a variety of tasks in their work and helping prevent boredom. While this process can be costly to the company because employees must be trained in several different areas, the cost tends to be balanced by the increase in morale and productivity. Job rotation also gives each employee the opportunity to see how the different jobs of a company fit together and gives the company more flexibility in covering tasks when workers are absent. However, while job rotation is a good way to enrich employees' jobs, it can also hinder performance: Having to know several different jobs in order to rotate can prevent employees from becoming proficient at any of the jobs. Therefore, the advantages and disadvantages of job rotation as an enrichment strategy have to be carefully weighed.



### **Employee Withdrawal Behaviour**

Such behaviors manifest at work, and may be physical or psychological. Physical behaviors are the most recognizable withdrawal behaviors. Examples of these behaviors are absenteeism, lateness/tardiness, leaving the job, internal job transfer, and turnover. Hanisch, and Hulin (1990) suggests individuals who are psychologically disengaged are often considered "lazy" or "burnt-out"; they easily become unreceptive, lack inspiration, and conduct trifling efforts on the job. In actuality "the lights are on, but nobody's home." Employees with low job satisfaction are less productive merely because they are less available to perform. Withdrawal behaviors are linked to one another, and they are all at least partially caused by job dissatisfaction. Many ask the question of how much an employee can withdraw while still upholding this relationship. The motivation to participate in absenteeism and the opportunity to do so must be present in order for an employee to achieve withdrawal. Employees withdraw from work in stages (Eder & Eisenberger, 2008). First, employees may show up late. Then, they withdraw additionally by not showing up for work (i.e. calling in sick). The final stage of employee withdrawal is turnover. Employees withdraw since they cannot stand either their leaders or co-workers, the job itself is not pleasurable, and the pay is bad and the opportunity for promotion even worse. Withdrawal may also be part of a progressive model and relate to job dissatisfaction, lack of job involvement, and decreased organizational commitment.

### **Voluntary and Involuntary Withdrawal Behaviors**

Many employees experience voluntary or involuntary withdrawal behaviors. An example of voluntary withdrawal would be if I begin coming to work late and/or leaving early because I no longer have interest in my job. This would encourage withdrawal behavior if not properly dealt with and could lead to poor performance. An example of involuntary withdrawal would be if my car breaks down I start having difficulty getting to work but the mental stress of having difficulty getting to work which could include experiencing hives or getting shingles as a result of. The difference is one is physical and the other becomes psychological. Job attitudes and voluntary withdrawal behaviors go hand-in-hand. The ability for an employee to explore job dissatisfaction opens a gateway to turnover if left unresolved. Leaders' attentiveness to what employees' needs are and identifying their stress/burnout is imperative in reducing the behavior or experiencing turnover. Effective techniques for reducing withdrawal behaviors can be implemented through company policy and by developing clear and effective job structures within a supportive work environment.

### **Measures of employee withdrawer behaviour**

The literature refers to withdrawal behaviors as tardiness (lateness), absenteeism and turnover (Adler, 1981; Clegg, 1983; Rosse, 1988; Blau, 1994). Prior to the 21st century, minimal research activity had been directed toward discerning the relationship between organizational citizenship behaviors and negative employee performance such as employee withdrawal behaviors and recently employee counterproductive behaviors (e.g. Berry, Carpenter & Barratt, 2012).

Subsequently, an interest in the subject area was spearheaded by researchers in the west and nonwestern countries using diverse sampling populations as a point of analysis to explore the relationships between organizational citizenship and withdrawal behaviors (e.g.

police officers in Australia, Brunetto, Shacklock & Farr-Wharton, 2012; social workers in Israeli health care system, Carmeli, 2005; manufacturing and sales organization work groups in the north eastern U.S., Eder & Eisenberger, 2008; elementary school teachers and administrators in Ankara, Turkey, Erdemli, 2015; employees in a financial institution in Haifa, Israel, Meisler, 2013; employees in a French-listed company, Nicolas & Nicolas, 2015; employees in a physical education organization in Ardabil, Iran, Noroozil & Masumabad, 2015; alumni of a business school in Fance, Paille & Grima, 2011; employees in the tourism and hospital industry in London, England, Regts & Molleman, 2012; employees in a vocational training organization in Ardabil, Iran, Sehbaradar & Hasanzadeh, 2013; high school teachers in Israel, Shapira-Lishchinsky, 2012; male and female nurses employed in a hospital in northern Israel, Shapira-Lishchinsky & Even-Zohar, 2011; employees from a variety of organizations in Netanya, Israel, Sharoni, *et al.*, (2012); teachers in a middle Tennessee school district, Shockley, 2012).

Fox, Spector, Goh, Bruursema & Kessler (2012) succinctly indicated that studies have shown a strong negative correlation between counterproductive work behavior (CWB) and organizational citizenship behavior (OCB), and opposite correlations with hypothesized antecedents (Spector & Fox 2010a and 2010b). Cohen, Panter & Turan's (2013) sampling of employees working in diverse industries at several levels in the organizations, findings indicated that employees low in guilt proneness engaged in counterproductive work behaviors to a greater degree than employees high in guilt proneness as predicted by gender, age, intention to turnover, interpersonal conflict at work and negative affect at work. The authors cautioned that it would be wise for employees to take into consideration guilt proneness of applicants at the initial stage of the hiring process. Studies on the consequences of employee withdrawal behaviors have examined the negative financial impact that these behaviors have on organizational effectiveness and efficiency. Cascio (2001) and Koslowsky (2000) suggested that these costs included lost productivity, administrative costs and negative effects on coworkers. Hackett (2009) indicated that employee absenteeism is a costly personnel problem and the estimated aggregate loss in wages and salaries to U.S. American workers was as high as \$26 billion a year (Steers & Rhodes, 2008).

### **Turnover Intention**

Employee turnover is an important factor in a small business's bottom line. Replacing employees can affect a business' productivity, expenses and overall performance. If you can measure your staff's turnover intention, you can determine the likelihood of your staff leaving your organization. This helps you determine where you can find opportunities to reduce your overall turnover. Turnover is the process through which staff leaves a business or organization and that business or organization replaces them. Turnover intention is a measurement of whether a business' or organization's employees plan to leave their positions or whether that organization plans to remove employees from positions. Turnover intention, like turnover itself, can be either voluntary or involuntary. Turnover intention and intention to quit are used interchangeably in the literature (Balogun, Adetula, & Olowodunoye, 2013). When employees seriously consider quitting their jobs, they are thought to have the intention to quit the organization (Omar, Anuar, Majid & Johari, 2012). The term "intention" describes an

employee's desire or deliberateness to leave the organization (Martin Jr., 2009; Tett & Meyer, 1993).

Turnover intention, a strong predictor of quitting an organization as discussed earlier, becomes a final step before an employee actually leaves the organization (Lee & Bruvold, 2003). The measurement of this construct often entails using a certain period of time (Suliman & Al-Junaibi, 2010; Tett & Meyer, 2003). The thought behind using this interval as a measurement is that employee turnover intention is a time-consuming process. This process has three stages (Falkenburg & Schyns, 2007). It starts with thinking of leaving the organization followed by the intention to search for a new job and is finally directed to the intention to leave (Falkenburg & Schyns, 2007; Mayfield & Mayfield, 2008). The intention to quit is not only conceived as an important determinant of actual turnover but also provides important information for management to control employees' avoidance behaviors. For example, employees with high turnover intention tend to become less productive and efficient (Balogun et al., 2013).

### **Absenteeism**

Absenteeism is a habitual pattern of absence from a duty or obligation without good reason. Generally, absenteeism is unplanned absences. Absenteeism has been viewed as an indicator of poor individual performance, as well as a breach of an implicit contract between employee and employer. It is seen as a management problem, and framed in economic or quasi-economic terms. Absenteeism is an unplanned, disruptive incident; but more specifically it can be seen as non - attendance when an employee is scheduled to work (Van Der Merwe and Miller, 1988). Nel, Dyk, Haasbroek, Schultz, Sono and Werner (2001) defined absenteeism as withdrawal behaviour when it is used as a way to escape an undesirable working environment. Nel *et al.*, (2001) also gives the meaning and level of motivation as : the minimum level – doing less than is required; expected level – doing just what is required; and the maximum level – doing more than is necessary. When a person is functioning at the first level or the third level as denoted above, this may be a cause for absenteeism. Organisational labour productivity needs to be analysed regarding how it will change in the future. Projected employee turnover and absenteeism influence the productivity of an organisations' workforce and its future workforce needs. This issue must be analysed so that plans can be developed to address them (Abbott, 2003).

The monitoring of absenteeism is a human resources function which is often neglected, and which also has employment relations implications if not properly managed; for example, Allen, Jimmieson, Bordia, and Irmer, (2007) states that high turnover and absenteeism rates often show poor management and/or conflict within the relationship with labour. It is the responsibility of the human resources department and the line managers to monitor and establish reasons for high absenteeism. Scheduled time off for employee vacations is an inevitable cost of doing business. In addition, costs related to unscheduled absenteeism can be reduced through wellness programmes, disability management and flexible time-off options. Employers cannot escape the salary costs of time off the job, but when they plan ahead they can often eliminate indirect costs such as hiring a temporary worker, paying someone else to work overtime or lost productivity.

### **Lateness**

Late employees can be found in any organization. The implications of such workers has been estimated to cost companies thousands of dollars a year in lost production or revenue as an individual's lateness behavior impacts not only his or her performance, but others as well (Mirvis & Lawler 2007; Jamal, 2004; Blau, 2004; Sagie, Birati, & Tziner, 2002). The effect on others is especially pertinent in the university setting, as classes cannot commence until the instructor arrives. Lessons that do not start on time become shorter resulting in a decrease in the amount of material taught which affects student learning. As tardiness has no organizational benefits associated with it, it needs to be examined as to why such an act occurs and how it influences those who are exposed to such behavior. It is hoped that research in this area could lead to a decrease in teacher tardiness. Employee lateness or tardiness can be defined as the start of work after the scheduled starting time as agreed to by employee and employer (Adler & Golan, 1981).

In a university setting, for example, if the first period class is required to begin at nine o'clock, an employee would be considered late in arriving at one minute past nine. Lateness can be sorted into two types of categories – avoidable and unavoidable. Avoidable lateness is employee controlled and refers to when employees have more important or better things to do rather than be on time. This could range from sleeping in or reading a newspaper in the morning, to chatting to co-workers in the coffee room. Unavoidable lateness tends to be circumstance controlled and is characterized by less controllable factors such as late trains, bad weather, or personal illness (Blau, 2011). Although unavoidable factors contribute to employee tardiness, they cannot be controlled, thus will usually be forgiven by an employer if the frequency of the occurrence is minimal. It is the avoidable lateness that is frowned upon as it is seen as an unnecessary cost to a company and would best be eliminated.

Lateness has been literally defined as a situation where an individual arrives after the proper, scheduled or usual time (Oxford Advanced Learners' Dictionary, 5th ed., 1995). Lateness has also been conceptualized as people not showing up on time (Lauby, 2009). Lateness has been viewed as "tardiness", which refers to being slow to act or slow to respond, therefore not meeting up with proper or usual timing (Breeze, 2010). It is obvious therefore that, lateness could be seen as a system of network breakdown (Peretomode, 1991).

### **Association between Skill Variety and Employee Withdrawal Behaviour**

Skill variety refers to the extent to which the job requires a person to utilize multiple high-level skills. A car wash employee whose job consists of directing customers into the automated car wash demonstrates low levels of skill variety, whereas a car wash employee who acts as a cashier, maintains carwash equipment, and manages the inventory of chemicals demonstrates high skill variety. Skill Variety is closely associated with the basic skills a person needs to perform a given task (Hackman & Oldham, 1976). Skill Variety is an objective measure because the numbers of skills needed to perform a job are quantifiable. There are three important caveats to consider when examining the role of variety in motivation. First, skill variety tends to increase with a job's level within an organization. A CEO utilizes more skills than an assembly-line worker does. Second, the variety of skills must be challenging. Similar to the Goal Setting Theory idea that goals must be difficult to motivate, Skill Variety must be challenging to

increase meaningfulness and satisfaction. The third stipulation that helps explain the role of skill variety is the idea that in some jobs, manipulation of skills is difficult, but not impossible. When a job requires a very specific and specialized skill as a primary component of task completion, consideration to the fundamental purpose of the job prevents alteration of, or distraction from it. Thus, the need for careful evaluation of Skill Variety is established.

From the foregoing point of view, the study hereby hypothesized thus:

**Ho<sub>1</sub>:** There is no significant relationship between skill variety and turnover intention of staff in the telecommunication industry of Port-Harcourt.

**Ho<sub>2</sub>:** There is no significant relationship between skill variety and absenteeism of staff in the telecommunication industry of Port-Harcourt.

**Ho<sub>3</sub>:** There is no significant relationship between skill variety and lateness of staff in the telecommunication industry of Port-Harcourt.

## **METHODOLOGY**

The study adopted a cross-sectional survey in its investigation of the variables. Primary data was generated through self-administered questionnaire. The population for the study was 248 administrative and management employees of 8 selected telecommunication companies in Port Harcourt. The sample size of 153 was determined using calculated using the Taro Yamane's formula for sample size determination. The reliability of the instrument was achieved by the use of the Cronbach Alpha coefficient with all the items scoring above 0.70. The hypotheses were tested using the Spearman's Rank Order Correlation Coefficient with the aid of Statistical Package for Social Sciences version 23.0. The tests were carried out at a 95% confidence interval and a 0.05 level of significance.

## **DATA ANALYSIS AND RESULTS**

From the Ho<sub>1</sub>: There is no significant relationship between skill variety and turnover intention of staff in the telecommunication industry of Port-Harcourt.

**Ho<sub>1</sub>: There is no significant relationship between skill variety and turnover intention of staff in the telecommunication industry of Port-Harcourt.**

The correlation coefficient (r) shows that there is a significant negative relationship between skill variety and turnover intention. The *rho* value -0.397 indicates this relationship and it is significant at  $p\ 0.000 < 0.05$ . The correlation coefficient represents a strong correlation between the variables. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between skill variety and turnover intention of staff in the telecommunication industry of Port-Harcourt.

**Table 1: correlation between skill variety and withdrawal behaviour**

			Skill Variety	Turnover Intention	Absenteeism	Lateness
Spearman's rho	Skill Variety	Correlation Coefficient	1.000	-.397**	-.244**	-.326**
		Sig. (2-tailed)	.	.000	.000	.000
		N	130	130	130	130
	Turnover Intention	Correlation Coefficient	-.397**	1.000	-.544**	-.630**
		Sig. (2-tailed)	.000	.	.000	.000
		N	130	130	130	130
	Absenteeism	Correlation Coefficient	-.244**	-.544**	1.000	-.396**
		Sig. (2-tailed)	.000	.000	.	.000
		N	130	130	130	130
	Lateness	Correlation Coefficient	-.326**	-.630**	-.396**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N	130	130	130	130

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

**Source: SPSS Output**

***Ho<sub>2</sub>: There is no significant relationship between skill variety and absenteeism of staff in the telecommunication industry of Port-Harcourt.***

The correlation coefficient (r) shows that there is a significant negative relationship between skill variety and absenteeism. The *rho* value -0.244 indicates this relationship and it is significant at  $p\ 0.000 < 0.05$ . The correlation coefficient represents a strong correlation between the variables. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between skill variety and absenteeism of staff in the telecommunication industry of Port-Harcourt.

***Ho<sub>3</sub>: There is no significant relationship between skill variety and lateness of staff in the telecommunication industry of Port-Harcourt.***

The correlation coefficient (r) shows that there is a significant negative relationship between skill variety and absenteeism. The *rho* value -0.326 indicates this relationship and it is significant at  $p\ 0.000 < 0.05$ . The correlation coefficient represents a strong correlation between the variables. Therefore, based on empirical findings the null hypothesis earlier stated is hereby

rejected and the alternate upheld. Thus, there is a significant relationship between skill variety and lateness of staff in the telecommunication industry of Port-Harcourt.

### **DISCUSSION OF FINDINGS**

The study findings reveal that there is strong positive relationship between skill variety and lateness of staff in the telecommunication industry of Port-Harcourt. This implies that low skill variety may require additional effort to maintain attention and performance and is likely to result in a lack of stimulation and motivation, displeasure and even more negative affective states, such as frustration or anger.

Skill variety is the extent to which employees are able to perform a wide range of tasks and refers to the use of different skills and variety in their job content (Morgeson & Humphrey, 2006). An example of a job with low task variety is the job of a data entry clerk, which requires data being input and corrected all day. An example of a job with high task variety is the job of a product manager; this job includes the whole product management circle, such as developing a marketing strategy, implementing marketing measures, conducting market analyses and pricing. According to the job demand-resource (JD-R) model, high task variety is a job resource (Bakker & Demerouti 2007). Job resources are aspects of work that help employees achieve personal goals, satisfy personal needs, stimulate personal growth and cope with job demands that require effort to deal with (e.g., time pressure). High levels of job resources are associated with positive motivational outcomes, such as work engagement (Bakker & Demerouti 2007). In contrast, "lacking resources preclude dealing effectively with high job demands and foster mental withdrawal or disengagement" (Schaufeli & Bakker, 2004: 296).

Similarly, high task variety has the functional value of making work-related goals achievable and contributing to personal growth and thus qualifies as a job resource. Task variety offers valuable opportunities to use different skills and fosters an experience of meaningfulness and motivation (Hackman & Oldham, 1976; Humphrey, Nahrgang & Morgeson, 2007). Van den Broeck, Schreurs, Guenter & van Emmerik (2015) showed that skill utilization is important for individual well-being; Van Ruysseveldt, Verboon & Smulders (2011) found that task variety promoted on-the-job learning opportunities and Smith *et al.*, (2009) demonstrated that individuals started to vary their tasks in order to remain interested and therefore meet performance demands. In contrast to high task variety, low task variety means a lack of opportunity to use valued skills (Loukidou, Loan-Clarke & Daniels, 2009).

A decrease in skill variety can be understood as the loss of a valued job aspect and opportunities for making full use of skills. A decrease in skill variety is consequently associated with an increase in perceived repetitiveness (Loukidou *et al.*, 2009). The study argue that a loss of task variety is, in a similar way to low task variety, a negative work-related experience to which employees may react with negative affective states. In addition, employees may feel the need to find a substitute for a lack of work stimulation so this can go hand-in-hand with lower task variety (Spector & Fox, 2010).

Evidence indicates that employees tend to direct employee withdrawal behaviour against the source of their displeasure (Fox, Spector & Miles, 2001). As the employer is responsible for job design, perceptions of task variety might be more strongly associated with CWB-O than with CWB-I. However, low task variety may also provoke CWB-I. This is in line with the work-environment hypothesis developed and supported by researchers on bullying (Baillien, De Cuyper & De Witte, 2011).

### **CONCLUSION AND RECOMMENDATIONS**

In this world of globalization, organizations are competing globally and one of the vital resources to organizational competitive advantage is the employees. With the view to making employees to be committed in the organization, management has resorted to fair compensation policies and human resource (HR) strategies ranging from promotion, job security, and good working conditions. However, management of the studied organizations fail to understand why some employees are not committed to the organization even though they have proactively implemented fair compensation policies and human resource (HR) practices to motivate and retain them.

Consequently, this study has by its finding provided empirical outcomes that emphasize the utilization of skill variety as a veritable strategy in motivating workers such that they actualize the reduction of employees' withdrawal behaviour.

The study recommends that in implementing the strategy of job enrichment as a means of motivation for workers, management should ensure that skill variety are apportioned in a manner that will bring about the retention of especially high flying staff, since reward incrementing has a constraint. Therefore, management should utilize skill variety optimally so that the staff will not also perceive the load as too complex or complicated to handle.

### **REFERENCES**

- Abbott, J. (2003). Does employee satisfaction matter? A study to determine whether low employee morale affects customer satisfaction and profits in the business-to-business sector. *Journal of Communication Management*, 7(4), 333–339.
- Allen, J., Jimmieson, L., Bordia, P. & Irmer, E. (2007). Uncertainty during organisational change: managing perceptions through communication. *A Journal Change Management*, 7(2), 36-48.
- Adler, S., & Golan, J. (1981). Lateness as a withdrawal behavior. *Journal of Applied Psychology*, 66(5), 544-554.
- Ali.H., & Aroosiya,M. (2010). Impact of job design on employees' performance (With Special Reference To School Teachers In The Kalmunai Zone). University of Kelaniya, Sri Lanka
- Bakker, A.B. &Demerouti, E. (2007). The job demands-resources model: State of the art", *Journal of Managerial Psychology*, 22(3), 309–328.



- Banks, J., Patel, C. J., & Moola, M. A. (2012). Perceptions of inequity in the workplace: Exploring the link with unauthorised absenteeism. *South African Journal of Human Resource Management*, 10(1), 1-8. doi:10.4102/sajhrm.v10i1.402
- Baillien, E., De Cuyper, N. & De Witte, H. (2011). Job autonomy and workload as antecedents of workplace bullying: A two wave test of Karasek's Job demand control model for targets and perpetrators. *Journal of Occupational and Organizational Psychology*, 84(1), 191–208.
- Blau, G. J. (1994). Developing and testing a taxonomy of lateness behavior. *Journal of Applied Psychology*, 79, 959-970.
- Bratton, J. (2007). *Work and Organizational Behaviour*. New York: Paul Grave Mac Milan. 2.
- Clegg, C.W. (1983). Psychology of employee lateness, absence, and turnover: A methodological critique and an empirical study. *Journal of Applied Psychology*, 88.-101.
- Derek Torrington and Laura Hall (2000). *Human Resource Management-The inside out, 4th ed.* England: Prentice Hall Publisher
- Eder, P. & Eisenberger, R. (2008). Perceived organizational support: Reducing the negative influence of co-worker withdrawal behavior. *Academy of Management Journal*, 34, 55-68.
- Feldman, D. C., & David, C. T. (2012). Career man- agreement issues facing expatriates. *Journal of International Business Studies*, 2(1), 271–293.
- Fox, S., Spector, P. E., & Miles, D. (2001). Counterproductive work behavior (CWB) in response to job stressors and organizational justice: Some mediator and moderator tests for autonomy and emotions. *Journal of Vocational Behavior*, 59, 291–309. doi:10.1006/jvbe.2001.1803
- Grag, P., & Rastogi, R. (2006). A new model for job design: Motivating employee's Performance. *Journal of Management Development*, 25(6), 572–587. <http://dx.doi.org/>
- Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology*, 60, 159-170.
- Humphrey, S.E., Nahrgang, J.D. & Morgeson, F.P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology*, 92(5), 1332–1356.
- Grant, A. M., & Shin, J. (2011). Work motivation: Directing, energizing, and maintaining effort (and research). Forthcoming in R.M. Ryan (Ed.), *Oxford Handbook Of Motivation*. Retrieved from <http://www.management.wharton.upenn.edu/grant/GrantShin-MotivationHandbook2011.pdf>

- Hanisch, K. A. & Hulin, C. L. (1990). Retirement as a voluntary organizational withdrawal behavior. *Journal of Vocational Behavior*, 37, 60-78.
- Johnson, M. D., Holley, E. C., Morgeson, F. P., Labonar, D., & Stetzer, A. (2014). Outcomes of absence Control initiatives: A quasi-experimental investigation into the effects of policy and perceptions. *Journal of Management*, 40, 1075-1097.
- Loukidou, L., Loan-Clarke, J. & Daniels, K. (2009). Boredom in the workplace: More than monotonous tasks. *International Journal of Management Reviews*, 11(4), 381–405.
- Morgeson, F.P. & Humphrey, S.E. (2006). The work design questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology*, 91(6), 1321–1339.
- Nel, P.S., Van Dyke, P.S., Haasbrock, G.D., Sono, T. & Werner, A. (2001). *Human resources management*. Cape Town: Oxford University Press.
- Pentland, B., T. (2003). Sequential variety in work processes author. reviewed work(s) *Organization Science*, 14(5), 528–540. <http://dx.doi.org/>
- Rosse, J. G. (1988). Relations among Lateness, Absence, and Turnover: Is There a Progression of Withdrawal? *Human Relations*, 41, 517-531.
- Schaufeli, W.B. & Bakker, A.B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293–315.
- Smith, J.L., Wagaman, J. & Handley, I.M. (2009). Keeping it dull or making it fun: Task variation as a function of promotion versus prevention focus. *Motivation and Emotion*, 33(2), 150–160.
- Spector, P. E. (2012). Perceived control by employee: A meta-analysis of studies concerning autonomy and participation at work. *Human Relations*, 39, 1005-1016.
- Spector, P.E. & Fox, S. (2005). The stressor-emotion model of counterproductive work behaviour”, in Fox, S. and Spector, P.E. (Eds.), *Counterproductive work behavior: investigations of actors and targets*. Washington, DC: American Psychological Association, 151–174.
- Strom, D. L., Sears, K. L., & Kelly, K. M. (2014). Work engagement: the roles of organizational justice and leadership style in predicting engagement among employees. *Journal of Leadership & Organizational Studies*, 21(1), 71-82.
- Taber, T. D., & Taylor, E. (1990). A review and evaluation of the psychometric properties of the Job Diagnostic Survey. *Personnel Psychology*, 43, 467–497.

- Timms, C., Brough, P., & Graham, D. (2012). Burnt-out but engaged: The co-existence of psychological burnout and engagement. *Journal of Educational Administration*, 50, 327-345.
- Torre, E. D., Pelagatti, M., & Solari, L. (2014). Internal and external equity in compensation systems, organizational absenteeism and the role of explained inequalities. *Human Relations*, 68, 409-440.
- Turner, A. N., & Lawrence, P. R. (1965). *Industrial jobs and the worker*. Boston: Harvard Graduate School of Business Administration.
- Torrington, D. & Hall, L. (2000). *Human Resource Management-The inside out, 4th ed*. England: Prentice Hall Publisher.
- Van den Broeck, A., Schreurs, B., Guenter, H. & van Emmerik, H. (2015). Skill utilization and well-being: A cross-level story of day-to-day fluctuations and personal intrinsic values. *Work & Stress*, 29(3), 306–323.
- Van Der Merwe, T. W. & Miller, D.M. (1988). *Performance Improvement Interventions: Enhancing people, processes and Organization through Performance Technology*. Mumbai: Jaico Publishing House.
- Van Ruyseveldt, J., Verboon, P. & Smulders, P. (2011). Job resources and emotional exhaustion: The mediating role of learning opportunities. *Work & Stress*, 25(3), 205–223.



# Office Physical Proximity and Employee Efficiency of Manufacturing Companies in Port Harcourt

**Dr. Ebikebina Tantua (Jnr.) and Gloria Osaro**

Department of Office and Information Management, Faculty of Management Sciences,  
Rivers, State University, Nkpolu-Oroworukwo, PMB 5080, Port Harcourt, Nigeria.

---

**Abstract:** *This study examined the relationship between office physical proximity and employee efficiency of manufacturing companies in Port Harcourt. The study adopted the cross-sectional survey design. Primary data was generated through structured questionnaire. The population of the study was 253 employees of seven (7) selected manufacturing companies in Port Harcourt. The sample size of 154 was determined using the Taro Yamane's formula for sample size determination. The research instrument was validated through supervisor's vetting and approval while the reliability of the instrument was achieved by the use of the Cronbach Alpha coefficient with all the items scoring above 0.70. The hypotheses were tested using the Spearman's Rank Order Correlation Coefficient. The tests were carried out at a 95% confidence interval and a 0.05 level of significance. The findings of the study revealed that there is a significant relationship between office physical proximity and employee efficiency of manufacturing companies in Port Harcourt. The study thus recommends manufacturing companies should provide sufficient and flexible furniture supported by suitable height panels to facilitate communication as well as visual and acoustical privacy.*

**Keywords:** *Office Physical Proximity, Employee Efficiency, Task Accomplishment, Timeliness Manufacturing Companies*

---

## INTRODUCTION

There is a long history of research and experimentation regarding the spatial layout and design features of offices and their effects on employees and organizational efficiency. Office physical work environment have also witnessed paradigm shift towards open office away from closed cellular offices since Frederick W. Taylor published "The Principles of Scientific Management" in 1911. The early shift in office design was influenced by the need to increase surveillance and control of the workforce by management according to (Charles, Farley & Newsharm, 2007). Currently, the larger and antiquated open plan designs are being adapted for modern offices for strategic purposes due to changing technology and a reflection of the hierarchical structures of many modern organizations. Within the organizational literature, offices have been typically described as either traditional (sometimes referred to as enclosed or cellular offices) or open. Traditional closed offices tend to house one or two individuals in private rooms, enclosed by

walls, often containing most of the amenities required for their job (Danielsson & Bodin, 2008). Alternatively, open-plan offices are characterized by a lack of interior walls, tend to be larger and contain greater numbers of workers, with individual workstations arranged within the office in groups (Brennan, Chugh & Kline, 2002).

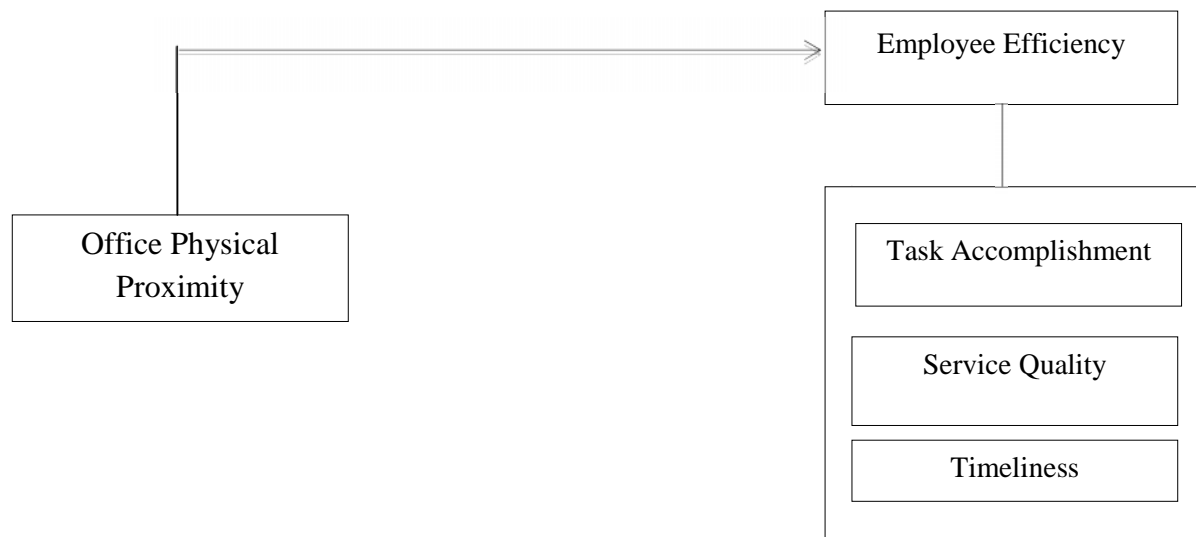
Debate on the pros and cons of open office strategy setting have dominated architectural and psychological literature. Initially, open office design were considered cost savings through a reduction in space required while enabling increased productivity through open access. In addition, they were originally designed for people to move around and interact freely as a way of promoting creative, better thinking and problem solving technique through improved internal communication. In the contrary, working in an open-space office have been linked to high levels of stress, mental workload, poor performance, conflict, high blood pressure, lower job satisfaction and internal motivation and a high staff turnover (Danielsson & Bodin, 2008).

The type of workplace environment in which employees operate determines whether or not such organizations" will prosper (Chandrasekhar, 2011). Physical workplace environment contextualizes the office layout and design while psychosocial factors include working condition, role congruity and social support from supervisors. Policies encompass employment conditions of employees derived from industrial instruments and agreements negotiated with employees and unions, along with our human resources policies. Employees spend fifty percent of their lives within indoor environments, which greatly influence their performance capabilities (Sundstrom & Sundstrom, 1994). Better physical workplace environment will boosts employees' performance and ultimately improve their productivity (Challenger, 2000). Workplace environment is a concept, which has been operationalized by analyzing the extent to which employees perceive the immediate surroundings' as fulfilling their intrinsic, extrinsic and social needs and their reason of staying with the organization (Haynes, 2008). He further adds that environment is a key determinant of the quality of their work and their level of performance. Heath (2006) states, the biggest goal of all the business organization are to increase their performance, thus making high profits.

The benefits of creating and maintaining a positive working environment are huge. Greater productivity, happier people, employee stability, business advantage, higher profits, greater security, and better health (Shrestha, 2007). Improving working environment results in decrease in the number of error rates, complaints, absenteeism and hence increases performance. Govindarajulu (2004) also highlighted that in twenty-first century, businesses are moving towards more strategic approach of environmental management to enhance their performance through improving and managing performance level of employees. The modern physical environment is distinguished by technology, computers, machines, general furniture and furnishings which continually affect the brain and health of employees (Stoessel, 2001). Organisations must ensure that the physical layout is covering all need of employees such as communication and privacy, formality and informality, functionality and cross-disciplinarily (White, 2001). This study therefore examined the relationship between office physical

proximity and employee efficiency of manufacturing companies in Port Harcourt. Furthermore, this study was guided by the following research questions:

- i. What is the relationship between office physical proximity and task accomplishment in manufacturing companies in Port Harcourt, Nigeria?
- ii. What is the relationship between office physical proximity and service quality in manufacturing companies in Port Harcourt, Nigeria?
- iii. What is the relationship between office physical proximity and timeliness in manufacturing companies in Port Harcourt, Nigeria?



**Fig.1:** Conceptual Framework for the relationship between office physical proximity and fittings and employee efficiency

**Source:** Author's Desk Research, 2019

## LITERATURE REVIEW

### Physical Proximity

Another office layout feature commonly investigated is physical proximity. This refers to the physical distance between people, measured in units, such as metres (Kiesler and Cummings, 2002). A large body of research has found that physical proximity increases the frequency and quality of communication between people (Allen, 1977; Boutellier, Ullman, Schreiber, and Naef, 2008; Kraut, Fish, Root and Chalfonte, 1990). In turn, having teammates in close proximity to one another can provide an environment for the efficient information exchange that is necessary for teamwork.

While the use of information and communication technologies is increasing, face-to-face communication is more effective than virtual communication methods for complex team tasks

(Santoro and Saporito, 2003), remaining important for organizations that value teamwork and collaboration. Physical proximity has also been shown to increase the level of collaboration between employees (Kraut et al., 1990). Kraut et al. (1990) investigated the impact of physical proximity on the probability of collaboration between 164 researchers within a large telecommunications organization. Their results indicated a strong positive relationship with a relatively large effect size.

Further, research has demonstrated that physical proximity can facilitate the development of relationships between employees (Griffin & Sparks, 1990) and that people feel closest to those who are in close physical proximity (Kiesler and Cummings, 2002). Previous research has suggested that physical proximity may be an important feature of the physical work environment that can be modified to increase the level of communication and collaboration (Allen, 1977), as well as being a tool to promote relationships between people (Griffin and Sparks, 1990).

### **Employee Efficiency**

Efficiency refers to how an organization uses its resources such as available funding and staff to achieve organization objectives. Efficiency measures include, per unit costs which refers to a measure of per unit cost and reveals how many resources are consumed in producing a unit of service, Cycle time: Measures the amount of time it takes for a process to be completed. Response time: Measures the amount of time it takes to respond to a request for service. Backlog: Measures the amount of work in queue, waiting to be processed. One way is to measure total work in queue waiting to be processed. Another way is to measure backlog as the amount of work not processed within a required or targeted time frame. Staffing ratios: Another way of looking at staffing is computing a ratio of staffing to a particular function or in comparison to the total organization and per unit equipment utilization: Measures the efficient use of equipment. Efficiency is all about resource allocation across alternative uses (Kumar and Gulati, 2010).

Efficiency measures relationship between inputs and outputs or how successfully the inputs have been transformed into outputs (Low, 2000). To maximize the output Porter's Total Productive Maintenance system suggests the elimination of six losses, which are: reduced yield –from start up to stable production; process defects; reduced speed; idling and minor stoppages; set-up and adjustment; and equipment failure. The fewer the inputs used to generate outputs, the greater the efficiency. According to Pinprayong and Siengthai (2012) there is a difference between business efficiency and organizational efficiency. Business efficiency reveals the performance of input and output ratio, while organizational efficiency reflects the improvement of internal processes of the organization, such as organizational structure, culture and Community.

## **Measures of Employees' Efficiency**

### **Task Accomplishment**

Task accomplishment is a measure of an employee's productivity and involves their contribution to overall organizational productivity and effectiveness, it refers to actions that are part of the formal reward system and addresses the prescription as indicated in the descriptions of the role (Williams and Karau, 1991). It shows the level or the extent an employee achieves a given target. In general, task accomplishment comprises of activities that translates the organizations policies, missions and resources into tangible and intangible goods produced by the organization and to enable efficient operation of the organization (Motowidlo, Packard & Managing, 1997). Thus, task accomplishment covers the fulfilment of the requirements that are part of the agreement between the employee and the organisation. Borman and Motowidlo (1993) pointed out that task accomplishment is the effectiveness and efficiency with which job incumbents perform activities that contribute to the organization's technical core and assist in moulding the psychological state of the organization (Borman & Motowidlo, 1993). They further suggested that in accomplishing a given task there are two aspects to it, which are interpersonal facilitation and job dedication. Interpersonal facilitation includes cooperative and helpful acts that help the effectiveness of co-employee. While job dedication includes self-disciplined and motivation to support organizational objectives and goals (Van Scotter & Motowidlo, 1996).

### **Service Quality**

Service delivery is a continuous, cyclic process for developing and delivering user focused services. It is further defined in four stages as user engagement, service design and development, service delivery and lastly assessment and positive change of service (Dachs, Ebersberger & Pyka, 2004). Other scholars have propounded other definitions and according to Carrillat, Jaramillo and Mulki (2007), service delivery is the physical access or reachability of services that meet a base standard. The later regularly requires detail as far as the components of service delivery, for example, essential equipment, medications and products, healthy workforce, and rules for treatment. Service delivery denotes the ability of the client to pay for the services where data can be collected by facility visits or by household interviews (Berghman *et al.*, 2006). In this study, service delivery was defined as the willingness and readiness of a workforce to provide services in a dependable, accurate and responsive manner while utilizing the available resources.

The SERVQUAL model was developed by Parasuraman, Zeithaml and Berry (1988) to define service quality by means of the gap between the customers' perceptions and the expectations about organization's service quality performance. The model distinguishes five determinants of administration quality as effects, unwavering quality, responsiveness, confirmation and sympathy. It is measured administration conveyance since it is a settled instrument that has been utilized as a part of different reviews and its psychometric properties have been examined by some of the studies (Asubonteng, McCleary & Swan, 1996). Consequently, service quality is composed of perceived quality and expected quality.



### **Timeliness**

When the employees are productive, they accomplish more in a given amount of time. In turn, efficiency saves their company money in time and labour. When employees are unproductive, they take longer time to complete projects, which cost employee's more money due to the time lost (Olajide, 2000). The importance of higher productivity of the employees in public enterprise cannot be overemphasized, which include the following; Higher incomes and profit; Higher earnings; Increased supplies of both consumer and capital goods at lower costs and lower prices; Ultimate shorter hours of work and improvements in working and living conditions; Strengthening the general economic foundation of workers (Banjoko, 1996). Armstrong (2006) stated that productivity is the time spent by an employee actively participating in his/her job that he or she was hired for, in order to produce the required outcomes according to the employers' job descriptions. As suggested by Bloisi (2003) the core cause of the productivity problems in the South African society are people's motivation levels and their work ethics. Time is an essential resource since it is irrecoverable, limited and dynamic (Downs, 2008) Irrecoverable because every minute spent is gone forever, limited because only 24hours exist in a day and dynamic because it's never static (Claessens, Roe & Rutte, 2009)

### **Relationship between Office furniture and fittings and Employee Efficiency**

Several studies have attempted to provide a link between the layout of office environment and the performance of the occupiers. To commence with, Felstead & Walters (2005) carried out a longitudinal study on corporations that have shifted office strategy from closed office to open plan offices. With a focus to match the office environment to the work processes and productivity, the study found out that switching from closed offices to open-plan offices facilitated employees' communication and creativity, increased control over the workers. The study also reports an increased satisfaction on lower staff basically based on their nature of work which calls for collaboration. On the contrary, the study reported a decreased satisfaction with senior managers due to loss of privacy and autonomy. Another interesting study, Ilozor & Oluwoye (1999) conducted a research that investigated the impact of open plan measures and the effectiveness of facilities space management. The study showed that organizations with open plan office offer a more productive workplace than closed office design. Furthermore, the study showed that open plan office designs offer an innovative work setting that improve employees vis-a-vis organizational performance. Thus the study concluded that physical properties of the office environments can be used to influence organizational performance.

In an endeavour to establish the impact of workplace on worker performance, Brill & Weidemann, (2001) carried out an evaluation of individual performance, team performance and job satisfaction with regards to different office setting designs i.e. single-occupant rooms, double-occupant rooms and open plan office. Their study findings revealed that closed office designs were more preferred by managers contrary to lower level staff who preferred medium office size. Accordingly, Brill & Weidemann (2001) identified ten of the most important workplace qualities of an ideal office design as: ability to do distraction-free solo work, support

for impromptu interactions, support for meetings and undistracted group work, workspace comfort, ergonomics and enough space for work tools. Other are workspace side-by-side work and “dropping in to chat”, located near or can easily find co-workers, workplace has good places for breaks, access to needed technology, quality lighting and access to daylight, temperature control and air quality.

Privacy need have also been related to several facets of job satisfaction. Montgomery (2004) noted that employees who left an open-plan office in order to go to either a low-density open-plan office or to a partitioned office experienced significant improvement in ask-privacy, communication privacy, crowding, and office satisfaction. Positive consequences of change from cellular closed office to open plan office are more effective for employees with low levels of stimulus screening or high privacy needs. In support of this, Becker (1990) assessed the states of “more open team-oriented environments on perceived visibility and accessibility, increased face-to-face interaction and improved privacy. The study supported an improved work effectiveness of individuals and teams in open cubic environments i.e. cubicles than open environment or closed environment. Besides, the study also showed that changing from enclosed workspaces to open workspaces results to perceived better visibility and accessibility, increased face-to-face interaction, and improved perceived privacy. All these have implications in job satisfaction and commitment on occupier service delivery (Becker, 1990).

From the foregoing point of view, the study thus hypothesized that:

- Ho<sub>1</sub>** There is no significant relationship between office physical proximity and employee task accomplishment in manufacturing companies in Port Harcourt, Nigeria.
- Ho<sub>2</sub>:** There is no significant relationship between office physical proximity and employee service quality in manufacturing companies in Port Harcourt, Nigeria.
- Ho<sub>3</sub>:** There is no significant relationship between office physical proximity and employee timeliness in manufacturing companies in Port Harcourt, Nigeria.

## **METHODOLOGY**

The study adopted the cross-sectional survey design. Primary data was generated through structured questionnaire. The population of the study was 253 employees of seven (7) selected manufacturing companies in Port Harcourt. The sample size of 154 was determined using the Taro Yamane’s formula for sample size determination. The research instrument was validated through supervisor’s vetting and approval while the reliability of the instrument was achieved by the use of the Cronbach Alpha coefficient with all the items scoring above 0.70. The hypotheses were tested using the Spearman’s Rank Order Correlation Coefficient. The tests were carried out at a 95% confidence interval and a 0.05 level of significance.

## DATA ANALYSIS AND RESULTS

### Tests of Hypotheses

Table 1: Correlation for physical proximity and measures of employee efficiency

			Physical Proximity	Task accomplishment	Service Quality	Timeliness
Spearman's rho	Physical Proximity	Correlation Coefficient	1.000	.517**	.400**	.792**
		Sig. (2-tailed)	.	.000	.000	.000
		N	138	138	138	138
	Task accomplishment	Correlation Coefficient	.517**	1.000	.846**	.469**
		Sig. (2-tailed)	.000	.	.000	.000
		N	138	138	138	138
	Service Quality	Correlation Coefficient	.400**	.846**	1.000	.342**
		Sig. (2-tailed)	.000	.000	.	.000
		N	138	138	138	138
	Timeliness	Correlation Coefficient	.792**	.469**	.342**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N		138	138	138

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

**Source: Research Data 2019 and SPSS output version 23.0**

The table 1: illustrates the test for the three previously postulated bivariate hypothetical statements.

***Ho<sub>1</sub>: There is no significant relationship between physical proximity and employee task accomplishment in manufacturing companies in Port Harcourt, Nigeria***

The correlation coefficient (r) shows that there is a significant and positive relationship between physical proximity and employee task accomplishment. The *rho* value 0.517 indicates this relationship and it is significant at  $p\ 0.000 < 0.05$ . The correlation coefficient represents a high correlation indicating a strong relationship. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate held. Thus, there is a significant relationship between physical proximity and employee task accomplishment in manufacturing companies in Port Harcourt, Nigeria.

***Ho<sub>2</sub>: There is no significant relationship between physical proximity and employee service quality in manufacturing companies in Port Harcourt, Nigeria***

The correlation coefficient (r) shows that there is a significant and positive relationship between physical proximity and employee service quality. The *rho* value 0.400 indicates this relationship and it is significant at  $p\ 0.000 < 0.05$ . The correlation coefficient represents a moderate relationship. Therefore, based on empirical findings the null hypothesis earlier stated is hereby

rejected and the alternate held. Thus, there is a significant relationship between physical proximity and employee service quality in manufacturing companies in Port Harcourt, Nigeria.

***Ho<sub>3</sub>: There is no significant relationship between physical proximity and employee timeliness in manufacturing companies in Port Harcourt, Nigeria***

The correlation coefficient ( $r$ ) shows that there is a significant and positive relationship between physical proximity and employee timeliness. The  $\rho$  value 0.792 indicates this relationship and it is significant at  $p\ 0.000 < 0.05$ . The correlation coefficient represents a high correlation indicating a strong relationship. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate held. Thus, there is a significant relationship between physical proximity and employee timeliness in manufacturing companies in Port Harcourt, Nigeria.

### **DISCUSSION OF FINDINGS**

The hypotheses examined the relationship between office physical proximity and employee efficiency of manufacturing companies in Port Harcourt. The study findings reveal that there is a significant relationship between physical fittings and employee efficiency of manufacturing companies in Port Harcourt. The study finding agrees with the works of Allen and Gerstberger, 1973; Allen, 1977; Boutellier, Ullman, Schreiber, and Naef, 2008; Kraut, Fish, Root, and Chalfonte (1990) that physical proximity increases the frequency and quality of communication between people (In turn, having teammates in close proximity to one another can provide an environment for the efficient information exchange that is necessary for teamwork.

While the use of information and communication technologies is increasing, face-to-face communication is more effective than virtual communication methods for complex team tasks (Santoro & Saporito, 2003), remaining important for organizations that value teamwork and collaboration. Physical proximity has also been shown to increase the level of collaboration between employees (Kraut et al., 1990). Kraut et al. (1990) investigated the impact of physical proximity on the probability of collaboration between 164 researchers within a large telecommunications organization. Their results indicated a strong positive relationship with a relatively large effect size.

Further, research has demonstrated that physical proximity can facilitate the development of relationships between employees (Griffin & Sparks, 1990; Homans, 1950) and that people feel closest to those who are in close physical proximity (Allen, 2007; Festinger, Schachter, and Back, 1950; Kiesler and Cummings, 2002). Previous research has suggested that physical proximity may be an important feature of the physical work environment that can be modified to increase the level of communication and collaboration (Allen, 1977, 2007; Kraut et al., 1990, 2002), as well as being a tool to promote relationships between people (Griffin and Sparks, 1990).

## CONCLUSION AND RECOMMENDATION

This study thus concludes that office furniture and fittings significantly influences employee efficiency of manufacturing companies in Port Harcourt. Specifically, the study concludes that, furniture and fittings significantly influence task accomplishment, service quality and timeliness. The study thus recommends manufacturing companies should provide sufficient and flexible furniture supported by suitable height panels to facilitate communication as well as visual and acoustical privacy.

## REFERENCES

- Al-Anzi, N. M. (2009). Workplace environment and its impacts on employee's performance: A study submitted to Project Management Department in Saudi Aramco, Open University of Malaysia.
- Allen, T. J. (1977). Managing the flow of technology: Technology transfer and the dissemination of technological information within the r&d organization. Massachusetts Institute of Technology, Cambridge, MA.
- Allen, T., Bell, A., Graham, R., Hardy, B. & Swaffer, F. (2005). *Working without walls: An insight into the transforming government workplace*, Office of Government Commerce, London.
- Asubouteng, P. & McCleary, K. & Swan, J., (1996). SERVQUAL revisited: a critical review of service quality. *Journal of Service Marketing*, 10(6), 62-81.
- Baldry, C. & Barnes, A. (2012). The open-plan academy: Space, control and the undermining of professional identity. *Work, Employment and Society*, 26(2), 228–245.
- Banjoko, S.A. (1996). *Human resource management*. Lagos : Saban Publishers
- Bloisi W. (2003). *Management and organizational behaviour*. London, United Kingdom: Prentice Hill
- Borman, W. C. & Motowidlo, S. J. (1993). Expanding the criterion domain to include elements of contextual performance. In N. Schmitt, & W. C. Borman (Eds.), *Personnel selection in organizations* (71-98). San Francisco: Jossey-Bass.
- Boutellier, R., Ullman, F., Schreiber, J., Naef, R. (2008). Impact of office layout on communication in a science-driven business. *R&D Management*, 38(4), 372–391.
- Brennan, A., Chugh, J. S., & Kline, T. (2002). Traditional versus open office design: A longitudinal study. *Environment and Behavior*, 279–299.
- Brill, M., Weidemann and the BOSTI Associates (2001) Disproving widespread myths about workplace design, Kimball International, Jasper
- Carrillat, F. A., Jaramillo, F. & Mulki, J. P. (2007). The Validity of the SERVQUAL and SERVPERF Scales. A Meta-Analytic View of 17 Years of Research across Five Continents. *International Journal of Service Industry Management*, 18(5), 472-490
- Chandrasekhar, K. (2011). Workplace environment and its impact on organizational Performance. *International Journal of Business Systems*, 7, 17-18.

- Charles, K., Farley, K., & Newsham, G. (2007). A model of satisfaction with an open-plan office condition: COPE field findings. *Journal of Environmental Psychology*, 117-189.
- Claessens, B. J. C., Roe, R. A., & Rutte, C. G. (2009). [Time management: logic, effectiveness and challenges](#). In R. A. Roe, M. J. Waller, & S. R. Clegg (Eds.), *Time in Organizational research* (23-41). (Routledge Studies in Management, Organisation and Society). Oxford UK: Routledge/Taylor & Francis Group.
- Danielsson, C., & Bodin, L. (2008). Office type in relation to health, well-being, and job satisfaction among employees. *Journal of Environment and Behavior*, 636- 668.
- Dachs, B., Ebersberger, B., & Pyka, A. (2004). Why do Firms Co-Operate for Innovation? A Comparison of Austrian and Finnish CIS 3 Results. Working Paper Series, University of Augsburg.
- Elsbach, K. D., & Bechky, B. A. (2007). It's more than a desk: Working smarter through leveraged office design. *California Management Review*, 49, 80–101
- Govindarajulu, N. and Daily, B.F. (2004) Motivating Employees for Environmental Improvement. *Industrial Management & Data Systems*, 104, 364-372.
- Griffin, E., & Sparks, G. G. (1990). Friends forever: A longitudinal exploration of intimacy in same-sex friends and platonic pairs. *Journal of Social and Personal Relationships*, 7(1), 29–46.
- Haynes, B.P. (2008). The Impact of office comfort on productivity. *Journal of Facilities Management*, 6 (1), 37-51.
- Ilozor, B. & Oluwoye, J. O. (1999). Open-plan measures in the determination of facilities space management. *Facilities*, 17(7/8), 237-45.
- Ilozor, B., Love, P. E., & Treloar, G. (2002). The impact of work settings on organisational performance measures in built facilities. *Facilities*, 20(1), 61-7.
- Jahncke H, Hygge S, Halin N, Green AM, Dimberg K. (2011). Open-plan office noise: Cognitive performance and restoration. *Journal Environment of Psychology*, 31:373-82.
- Keeling, B. L. & Kallaus, N. F. (1996) *Administrative office management, 11th ed.* Ohio: International Thompson Publishing.
- Kraut, R. E., Fussell, S. R., Brennan, S. E., & Siegel, J. (1990). Understanding Effects of Proximity on Collaboration : Implications for Technologies to Support Remote Collaborative Work.
- Kumar S., Gulati R., (2010). Measuring efficiency, effectiveness and performance of Indian public sector banks. *International Journal of Productivity and Performance Management*, 59(1), 51–74 <http://dx.doi.org/10.1108/17410401011006112>
- Laframboise, D., Nelson, R. L. & Schmaltz, J. (2003). Managing resistance to change in workplace accommodation projects. *Journal of Facilities Management*, 1(5), 306-21.
- Low J. (2000). The value creation index. *Journal of Intellectual Capital*, 1(3), 252 – 262.
- Motowidlo, S.J., Packard, J.S., & Managing M.R (1997). Occupational stress: Its cause and consequences for job performance. *Journal of Applied Psychology*, 71, 618-629

- Olajide, A. (2000). *Getting the best out of employees in a developing economy*. Ibadan: University of Ibadan, Nigeria.
- Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1988). SERVQUAL: A multiple item scale for measuring customer perceptions of service quality. *Journal of Retailing*, 64, 12–40.
- Pinprayong B. and Siengtai S. (2012). Restructuring for organizational efficiency in the banking sector in Thailand: a case study of Siam commercial bank. *Far East Journal of Psychology and Business*, 8(2), 29-42.
- Quible, Z. K. (1996). *Administrative office management: an introduction 7th. Ed.* Prentice-Hall, Upper Saddle River, New Jersey.
- Santoro, M.D. & Saporito, P.A. (2003). The firm's trust in its university partner as a key mediator in advancing knowledge in new technologies. *IEEE Transactions on Engineering Management*, 50(3), 362-373.
- Shrestha & Shruti. (2007). Improving employee performance. *Journal of Banking and Finance*, E90–D (10), 1621-1629.
- Stoessel, J. M. (2001). The impact of the workplace on effective employee performance in Corporate America, Unpublished Thesis New Jersey: Seaton Hall University
- Sundstrom, E. & Sundstrom, G.M (1994). *Work places: The Psychology of the Physical Environment in Office*. Cambridge University Press. New York.
- Thompson, A. A., Jr. & Stickland III, A. J. (1990), *Strategic Management: Concepts & Cases*, 5th Edition, Nomewood: Richard D. Irwin Inc., p. 3.
- Van der Voordt, T.J.M. (2004). Productivity and employee satisfaction in flexible workplaces. *Journal of Corporate Real Estate*, 6(2), 133.
- Van Scotter, J. R. & Motowidlo, S. J. (1996). Interpersonal facilitation and job dedication as separate facets of contextual performance. *Journal of Applied Psychology*, 81, 525-531.
- Williams, K.D. & Karau, S.J (1991). Social loafing and social compensation: The effects of expectations of co-worker productivity. *Journal of Personality and Social Psychology*, 861, 570-581.
- Zhang, Z. & Spicer, A. (2014). Leader, you first': The everyday production of hierarchical space in a Chinese bureaucracy. *Human Relations*, 67(6), 739-762.



## **Online Consumer Protection Initiatives and E-loyalty**

**Ateke, Brown Walter and Isaac, Happiness Angel**  
Department of Marketing, Rivers State University

---

**Abstract:** *This study examined online consumer protection initiatives and e-loyalty. The study was explanatory in nature and was conducted in a natural setting. The population for the study comprised undergraduate students of five (5) higher educational institutions in two local government areas of Rivers State. Primary data collected from three hundred and thirty-four (334) respondents through a self-made structured questionnaire in a cross-sectional survey was used in the final analysis of the study. The test units of the study were selected via the accidental sampling technique. The Spearman's rank order correlation served as the test statistic, relying on SPSS version 23.0. The study found that online consumer protection initiatives relates to e-loyalty as all the proxies of online consumer protection initiatives considered in the study posted positive and statistically significant correlation with the metrics of e-loyalty studied. The study concludes that online consumer protection initiatives predict e-loyalty or that e-loyalty depends on online consumer protection initiatives; and recommends that e-tailers in Rivers State that desire to drive or improve e-loyalty should institute adequate online consumer protection initiatives that guarantees access to appropriate information, fair contract terms and emphasize consumer data security, and also communicate same to netizens in order to build trust and endear their brands to netizens and earn their loyalty online.*

**Keywords:** *E-loyalty, online consumer protection initiatives, positive WoM, repeat purchase*

---

### **INTRODUCTION**

The key to sustenance in business is a satisfied and loyal customership; and firms make deliberate efforts to orchestrate and maintain customer loyalty. This is especially so in e-commerce where it is considerably more arduous to enlist loyalty due to competition from both online and offline vendors that offer similar value (Flavian & Guinaliu, 2005). E-loyalty is therefore critical to e-tailing success in lieu of the many benefits - profitability, long-term growth and stability - that accrue from customer loyalty (Reichheld, 1995). Loyal e-consumers visit their favorite e-commerce sites twice as often as non-loyal ones, spend more money, and in fact account for thirty-five to forty per cent of e-commerce sales revenue (Gurinto, & Siringoringo, 2013; Rosen, 2001). The internet passes as one disruptive innovation that has significantly altered the way business is conducted, giving firms the leeway to effect value creation and delivery that give consumers a wide array of choices and their desired satisfaction. The internet and internet-enabled media enhances companies' efficiency, allow them build closer relationships with customers and compete on a global scale (Nunkoo & Ramkissoon, 2013; Alam & Noor, 2009).

One of the many areas of business practice that the internet has affected is retailing



(Ateke & Ogbuji, 2017); as the internet has become a formidable distribution channel and as online shopping becomes a preferred means of obtaining required products for consumers (Mandilas, Karasavvogbu, Nikolaidis & Tsourgiannis, 2013). Hence, in addition to being the “information super high way”, the internet has also been the leverage to a huge market with limitless potentials and unhindered national boundaries (Gurinto, & Siringoringo, 2013). The conduct of business on the internet prompted the coinage of the term “e-commerce” (Singsangob, 2005). E-commerce enables e-tailers and netizens to transact efficiently; and makes international transactions less costly (Ateke & Ogbuji, 2017; Svantesson & Clarke 2010).

However, most consumers are slow to adopting online shopping due to security and privacy concerns (Amani, 2015). Online shopping is more susceptible to risks than traditional shopping because it does not allow for thorough examination of products before purchase. Also, online shoppers are often constrained to shop from e-stores whose operators are unknown; a phenomenon that gave rise to the unending discourse of online consumer protection. Apparently, businesses, consumers and the society stand to benefit from the increased volume of e-transactions that are likely to follow from increased consumers’ confidence, with improved e-consumer protection (Svantesson & Clarke, 2010). Thus, increased attention has attended online consumer protection by scholars and policy makers alike (Ateke & Ogbuji, 2017).

Shopping from the comfort of home or office, access to varieties and ability to compare prices are evident benefits of online shopping (Svantesson and Clarke, 2010); and while online payment systems and security technology have improved significantly, e-consumers still experience problems with online shopping from time to time (Kuriachan, 2014). Hence, while online shopping is convenient with no restrictions of time and space, it also poses hidden risks, compared to traditional shopping. Customers are often apprehensive of delivery systems, payment systems and the facelessness of e-tailers. Customers are also concerned about security and privacy of online transactions, fearing that their personal information might be misused or that they might become victims of cybercriminals. This is more so, as threats in the form of credit card fraud and password theft are creating substantial problems for netizens and e-tailers.

The debate over e-consumer protection has been an ongoing discourse since the dawn of e-commerce, being an important issue not only for consumers; but also for e-tailers. Commentators differ in their views of who should be responsible for the protection of e-consumers. Some hold the view that government should institute legislative and policy frameworks to safeguard e-consumers, others argue that e-tailers must provide for adequate protection of online shoppers, while yet others argue that e-consumers must take the responsibility of protecting themselves (Ateke & Ogbuji, 2017). The debate continues. A general conviction however, is that consumers will increasingly adopt online shopping and be loyalty to e-tailers that protects their privacy and secures their private data. Previous studies have linked various aspects of online consumer protection to e-loyalty; including access to appropriate information, fair contract terms, protection of consumers' personal data, and access to fair dispute resolution mechanisms (Svantesson & Clarke, 2010), satisfaction and trust (Kim, Jin, & Swinney, 2009), perceived risks towards e-transaction (Kwon & Lennon, 2009), positive

previous purchase experience (Fang, Qureshi, Sun, McCole, Ramsey & Lim, 2014), and website quality and website customization (Zhang, Agarwal & Lucas, 2011). This study is thus on the footing to join the discourse on online consumer protection initiatives and e-loyalty, by examining the link between the variables among undergraduates in Rivers State.

## **LITERATURE REVIEW**

### **Online Consumer Protection Initiatives**

Consumer protection is not a new concept in commercial transactions. It is as old as commerce itself; and is used to refer to the legislations, rules, laws and regulations established to govern buyer-seller relationships (Ateke & Ogbuji, 2017). Mugobo and Malunga (2015) referred to consumer protection as a range of regulatory and non-regulatory measures instituted to address private market failures that leave consumers vulnerable to losses, especially due to unfair trade practices. However, Badler (2007) as cited in Ateke and Ogbuji (2017) broadened the scope of consumer protection by asserting that consumer protection initiatives are about implementing consumer right with a view to ensuring just or proper conducts when dealing with consumers as well as ensuring that consumers are protected from harm in their dealing with sellers. Online consumer protection initiatives are thus measures adopted by e-tailers to ensure the security and privacy of online shoppers; and that netizens protected from unethical practices of e-tailers (Ateke & Ogbuji, 2017). They are rules and regulations instituted by regulatory bodies or best practices evolved by firms to shield e-consumers from risks associated with online transactions. Literature presents several online consumer protection initiatives. This study however focuses on consumers' data security (CDS), access to appropriate information (AAI) and fair contract terms (FCT).

### **Consumers' data security (CDS)**

Consumers' data security refers to the protection of identity and personal information divulged by consumers in online transactions. It describes the degree to which personal information of netizens is not shared with third parties without their expressed permission (Ozuru & Kalu, 2013) in Ateke and Ogbuji (2017). Data security is netizens' belief that their personal information divulged in online transactions will not be used, viewed, or stored by unauthorized parties. The OECD (2016) guidelines set out eight principles that should be observed in handling consumers' personal information. These are: "Data collection limitation principle, data quality, purpose specification, security safeguards, openness, individual participation and accountability principle". These principles provide adequate protection for customers' personal data. "Privacy statements are a fairly new feature for online companies, although some businesses have always made responsible use of consumer information" (OECD, 2016). They usually detail how the company intends to use the personal information collected from customers (Ozuru & Kalu, 2013) in Ateke and Ogbuji (2017). "Data protection is one of the most common challenges of e-commerce as intrusion of privacy - the improper access, collection, monitoring, analysis, transfer and storage of consumers' personal consumer information - remains a recurrent issue in the digital world" (Flavian & Guinaliu, 2005). Protection of customers' personal data is thus a

critical factor in acquiring and retaining online. Hence, perceived privacy regarding the handling of private data influences e-loyalty (Flavian & Guinaliu, 2005).

#### **Access to appropriate information (AAI)**

“E-tailers are required to provide with sufficient information about their business to allow for its identification and location; facilitate prompt, easy and effective communications; enable appropriate and effective conflict resolution; and service of legal process in domestic and cross-border disputes” (OECD, 2016). Clear and timely information about the identity of e-vendors in terms of legal name, offline location, website, e-mail address and telephone number(s) help consumers make informed choices. Consumers also require appropriate information about products and terms and conditions of expected transactions. The internet, which comprises interlinked computer networks carrying copious information that has developed dramatically with respect to its use as a tool for communication, entertainment and commerce. This development is however not without concerns on how e-consumers’ personal data is collected and distributed by e-tailers. Hence, e-consumers crave access to information about the firms they transact with in the virtual world. The internet has no doubt transformed how business transactions are consummated; access to relevant information about e-vendors is thus likely boost e-consumers’ confidence in e-transactions.

#### **Fair contract terms (FCT)**

Consumers enter contracts for the supply of product in their everyday lives. These contracts sometimes contain terms that favour sellers at the expense of buyers. Unfair terms particularly in the form of exemption clauses can be found on receipts, invoices and other sale documents. These terms often operate harshly against consumers because their rights may be limited or restricted or denied all together. Generally, contract terms are unfair if they put customers at an unfair disadvantage. Online consumers want all contract terms to be plain and intelligible; they must be transparent, legible and easy-to-understand, in order for consumers to make informed choices. Also e-consumers want all contract terms to be up-front and open. It is important to be up-front about important terms that could have significant impact on customers. Section 24A(c) of the contract act defines unfair term as a term in a consumer contract which, with regard to all the circumstances, causes a significant imbalance in the rights and obligations of the parties arising under the contract to the detriment of the consumer. Obviously it does not mean that there should be a perfect symmetry between the parties' rights and obligations under the contract. The law is only concerned with a term that causes significant imbalance to the detriment of the consumer.

#### **E-loyalty Conceptualized**

Customer loyalty is a deep psychological predisposition of customers to continually buy a particular product or continually buy from a particular outlet. It describes a situation where a satisfied customer continuously returns for further business. Wokoma and Toruyouyei (2019) thus state that customers’ loyalty to a product, brand or outlet is dependent on satisfaction with previous experience. Business sustainability is anchored on loyal customers that are willing to stick with the firm and its offerings (Wokoma & Toruyouyei, 2019). The use of the internet

and internet-enabled platforms to facilitate marketing functions require adjusting the definition of customer loyalty in lieu of the peculiarities of e-transactions, as e-consumers do not only crave need satisfaction but also privacy and security (Flavián & Guinalíu, 2005). E-loyalty is therefore a deeply held intension to repurchase consistently from an e-tailer, despite the presence of factors that may induce switching behaviour. It is a “deeply held commitment to revisit the website consistently and desire to stay more at the website for each visit, thereby causing sticky and repetitive visit” (Gupta & Kabadayi, 2010). Several measures of loyalty exist: Repeat purchase, customer retention and word of mouth (Narver & Slatter, 1990) in Seyyed, Amini and Amini (2010). E-loyalty may be induced by offering customers convenience, ease of use and by focusing on providing exceptional customer experience. E-loyalty is measured in this study as repeat purchase and positive word-of-mouth.

### **Repeat purchase**

Repeat purchase describes a situation where a consumer buys a given products or buy from a given outlet for a second time or continually; or where a satisfied customer continues patronage. Repeat purchase is a type of loyalty behaviour customers enacts, and which is very critical to the sustainability of e-tailers. An e-tailer that enjoys repeated purchases from current customers is likely to remain long in business. Repeat purchase is vital to e-tail success. It is thus essential for e-tailers to build relationships with customers rather than focus on transactions. Repeat purchase behaviour is influenced by certain characteristics of the firm and its products. Thus, e-tailers must strive for distinctiveness in the manner they protect customers and over all service delivery in order to elicit repeat purchases.

### **Positive word-of-mouth**

Positive WoM is an informal and non-commercial form of interpersonal communication between individuals or between actual and potential consumers concerning a brand or product; but is neither initiated nor directly influenced by the brand (Gremmler, Gwinner, & Brown, 2001). It is brand evangelism carried out by satisfied customers; and is avowed to be a potent medium of communication for influencing consumers’ attitude toward a brand (Hanaysha, 2016). WoM is particularly salient in services marketing due to the experiential nature of services which makes prepurchase assessment difficult (Jalilvand, Salimipour, Elyasi, & Mohammadi, 2017). Positive WoM is effective in influencing consumers’ purchase behaviour because customers tend to rely more on it in their purchase decisions making, and is preferred by marketers because it is cost-effective (Hogan, Lemon, & Libai, 2004). Positive WoM indicates customers’ loyalty to brands, it improves brand image and elevate customers’ service quality perception (Ateke & Kalu, 2019).

### **Online Consumer Protection Initiatives and E-loyalty**

E-consumer data is valuable to e-tailers because it facilitates market intelligence and consumer profiling. The concern for consumers however, relates to privacy and security in terms of how their personal data is collected and used, liability for data breaches, and data sharing among third parties. These privacy and security concerns are consistent across age, gender, personality

and country. The protection of consumers' personal data through appropriate controls, security and transparency relating to the collection and use of their personal data is critical to attracting and winning the loyalty of netizens. E-tailers deploy digital platforms to attract customers, and build, maintain and enhance relationships that enhance loyalty and company success (Chiou, 2004). Customer loyalty is crucial to marketing success. This is because loyal customers tend to buy more, willingly pay more, and advocate for the brand or product. However, netizens crave access to information about e-tailers they transact with. Easy access to appropriate information enables online consumers make informed choices. Netizens also want clear and timely information regarding products and terms and conditions of transactions entered into.

E-tailers are thus encouraged to develop and introduce "live help technology" to grant consumers easy access to information. Live help technology is enable e-consumers interact with human customer service representatives directly, using online media (Aberg & Shahmehri, 2003). Integrating human assistance into web pages makes a site more interactive, improves the site's atmosphere and increases customers' loyalty to the site. Interactivity enabled by live help technology reduces dissatisfaction, since e-consumers can count on the availability of live help (Jiang & Benbasat, 2007). Live help technology also enables access to important information concerning transactions; and therefore drives e-trust and e-loyalty. Prompt acknowledgement of consumer concerns, positive user attitudes, enhanced user competence and self-efficacy in gathering information are some benefits that accrue from adequate real-time response from service representatives (Jiang & Benbasat, 2007).

Furthermore, fair contract terms predict customer loyalty. Online shoppers want to be sure that the contracts they enter in their online transactions do not disadvantage them in any way. While contract terms that seem unfair in one context may not be so in another, fair terms do not cause significant imbalance between consumers' rights and obligations and those of the business. Often, consumers do not read the terms of contracts before acceptance; and those who make out time to read the terms, do not always understand the implication of the terms because they are in small prints, and often complex. Also, even where consumers are unsatisfied with the terms of a contract, they usually do not have much choice but to accept because of the cost of scouting for better terms, and because sellers in the same industry often use similar contract terms. Nonetheless, in order for relationships to be created, e-tailers must ensure that contract terms are not detrimental to buyers. Terms of contract must be plain, intelligible, and transparent. They must be easy-to-understand, legible and allow consumers make informed choices. In view of the foregoing, the study hypothesizes as follows:

**Ho<sub>1</sub>:** Consumer data security does not significantly relate to repeat purchase.

**Ho<sub>2</sub>:** Consumer data security does not significantly relate to positive word-of-mouth.

**Ho<sub>3</sub>:** Access to appropriate information does not significantly relate to repeat purchase.

**Ho<sub>4</sub>:** Access to appropriate information does not significantly relate to positive word-of-mouth.

**Ho<sub>5</sub>:** Fair contract terms do not significantly relate to repeat purchase.

**Ho<sub>6</sub>:** Fair contract terms do not significantly relate to positive word-of-mouth.

## **METHODOLOGY**

This study was designed to examine the association between online consumer protection initiatives and loyalty of e-tail customers. The study was explanatory, as it sought to explain phenomena as observed, without manipulation. The population of the study comprised customers of e-tailers who are undergraduate students of higher educational institutions in Obio-Akpor and Port Harcourt local government areas of Rivers State. In view of the infinite and flowing nature of the population, three hundred and eighty-five (385) undergraduate students of five (5) higher educational institutions in the two local government areas were sampled using the accidental sampling technique. Three hundred and eighty-five (385) is an adequate sample for a large population whose proportional variability is unknown (Israel, 2012).

Primary data was collected using a structured questionnaire, via a cross-sectional survey. The study targeted and sampled undergraduates who admitted to have preferred e-tailers they patronized. Three hundred and eighty-five (385) copies of questionnaire were administered to the respondents. However, only data collected from three hundred and thirty-four (334) copies of questionnaire was used in the final analysis of the study. The validity of the study instrument was confirmed via the opinion of academic experts and practitioners who have sufficient knowledge of the subject of the study; while the internal consistency of the measurement items was confirmed through the Cronbach's Alpha test of reliability with a threshold of 0.70 set by Nunally (1978). Table 1 below presents a brief of the result of test of reliability.

**Table 1: Reliability analysis of items of all variables**

S/N	Variables	Number of items	Cronbach's Alpha Coefficient
1.	CDS	6	0.719
2.	AAI	5	0.720
3.	FCT	6	0.721
4.	Repeat Purchase	5	0.702
5.	Positive WoM	4	0.711

**Source:** Simulation from SPSS output of data analysis on online consumer protection initiatives and e-loyalty (2019).

The summary of the reliability results as indicated on Table 1 above reveals that the measurement scale met the minimum reliability benchmark. This means that the study instrument can be relied upon to produce the same results on repeated tests. The Spearman's rank order correlation was employed to test the linear association between proxies of online consumer protection initiatives and metrics of e-loyalty. The statistical package for social sciences (SPSS) version 23.0 was relied upon for all analyses.

**RESULTS****Primary Analysis****Table 2: Distribution of Gender of Respondents**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Male	218	65.3	65.3	65.3
	Female	116	34.7	34.7	100.0
	Total	334	100.0	100.0	

Source: SPSS output of data analysis on online consumer protection initiatives and e-loyalty (2019).

Table 2 demonstrates that two hundred and eighteen (218), representing sixty-five-point-three per cent (65.3%) of the respondents are males while one hundred and sixteen (116), representing thirty-four-point-seven per cent (34.7%) are females.

**Table 3: Age Distribution of Respondents**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	18-22 Years	116	34.7	34.7	34.7
	23-27 Years	90	26.9	26.9	61.6
	28-33 Years	88	26.3	26.3	87.9
	34 and above	40	12.0	12.0	100
	Total	334	100.0	100.0	

Source: SPSS output of data analysis on online consumer protection initiatives and e-loyalty (2019).

Table 3 above show that one hundred and sixteen (116), representing thirty-four-point-seven per cent (34.7%) of the respondents are between the ages of 18-22. Ninety (90) of them, representing twenty-six-point-nine per cent (26.9%) are within the 23-27 age bracket. Eighty-eight (88) respondents representing twenty-six-point-three per cent (26.3%) are between the ages of 28-33; while, forty (40) respondents representing twelve per cent (12%) are 34 years and above.

**Table 4: Number of Repeated Transaction with E-tailers**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	2-4	55	16.5	16.5	16.5
	5-7	245	73.4	73.4	89.8
	8-10	34	10.2	10.2	100.0
	Total	334	100.0	100.0	

Source: SPSS output of data analysis on online consumer protection initiatives and e-loyalty (2019).

From Table 4 above it may be observed that fifty-five (55), representing sixteen-point-five per cent (16.5%) of the respondents have had between 2-4 transactions with their preferred e-tailers. Two hundred and forty-five (245) of them representing seventy-three-point-four per cent (73.4%) have had between 5-7 transactions with their preferred e-tailers, while thirty-four (34) of them representing ten-point-two per cent (10.2%) have had between 8-10 transactions

with their preferred e-tailers. This data suggest that e-loyalty is prevalent within the surveyed population.

**Table 5: Descriptive Statistics on Proxies of Online Consumer Protection Initiatives and Metrics of E-loyalty**

	N	Minimum	Maximum	Mean	Std. Dev.
CDS	334	1.00	5.00	3.9002	1.10691
AAI	334	1.67	5.00	3.8772	.89482
FCT	334	1.00	5.00	3.6228	1.16737
Repeat purchase	334	1.67	5.00	3.9661	.94078
Positive WoM	334	1.67	5.00	3.6671	.84388
Valid N (listwise)	334				

Source: SPSS output of data analysis on online consumer protection initiatives and e-loyalty (2019).

Table 5 above presents the mean coefficients and standard deviations of dimensions of online consumer protection initiatives and measures of e-loyalty. With mean scores of 3.9002, 3.8772 and 3.6228 and standard deviations of 1.10691, .89482 and 1.16737 respectively, the results reveal that the online consumer protection initiatives are manifest within the contexts of the investigation. The results indicate that e-tailers institute observable online consumer protection initiatives. The second variable assessed was e-loyalty. The intention was to evaluate if netizens exhibit e-loyalty; and with a mean score of 3.9661 and 3.6671 and standard deviations of .94078 and .84388 respectively for repeat purchase and positive word-of-mouth, the Table indicates that netizens exhibit e-loyalty behaviours and disposition.

## Secondary Analysis

### Scatter plot of nexus between study variables

Scatter plot is one of the techniques used in assessing whether a bivariate relationship does exist between interval scaled variables. In our bid to determine the existence and trend of relationship between online consumer protection initiatives and loyalty of consumers to e-tailers, we plotted a scatter diagram as presented in Figure 1 below. The predictor variable is plotted on the X axis while the criterion variable is on the Y axis.

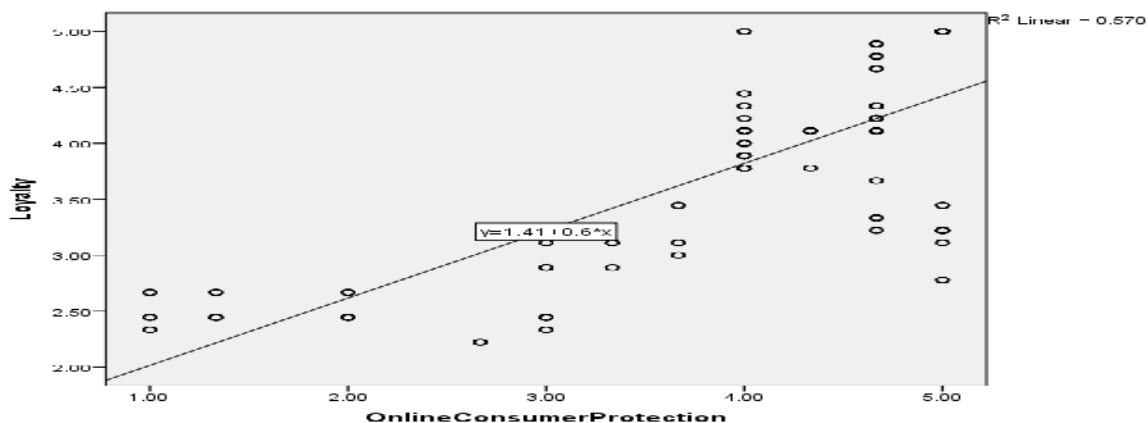




Figure 1: Scatter plot of link between online consumer protection initiatives and e-loyalty  
Source: SPSS output of data analysis on online consumer protection initiatives and e-loyalty (2019).

Figure 1 shows a moderate positive relationship between online consumer protection initiatives and loyalty of e-tail customers. The scatter plot shows an  $R^2$  linear value of 0.570 depicting a positive moderate relationship between the variables. The implication is that increased online consumer protection initiatives will drive increased e-loyalty.

### Test of Hypotheses

The Spearman Rank Order Correlation coefficient is calculated using the SPSS version 23.0 to determine the relationship among the empirical referents of the predictor variable and the criterion variable. Correlation coefficient can range from -1.00 to +1.00. -1.00 represents a perfect negative correlation while +1.00 represents a perfect positive correlation. A value of 0.00 represents a lack of correlation.

Table 6: Correlation matrix of Consumer Data Security and Measures of E-loyalty

			CDS	Repeat Purchase	Positive WoM
Spearman's rho	CDS	Correlation Coefficient	1.000	.483**	.620**
		Sig. (2-tailed)	.	.000	.000
		N	334	334	334
	Repeat Purchase	Correlation Coefficient	.483**	1.000	.620**
		Sig. (2-tailed)	.000	.	.000
		N	334	334	334
	Positive WoM	Correlation Coefficient	.620**	.620**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	334	334	334

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

Source: SPSS output of data analysis on online consumer protection initiatives and e-loyalty (2019).

Table 6 shows the result obtained for consumer data security and repeat purchase. The Table indicates that there is a moderate positive relationship between consumer data security and repeat purchase. The correlation coefficient of 0.483\*\* confirms the extent and strength of this relationship and it is significant at  $p = 0.000 < 0.01$ . This suggests that increased consumer data security will result to increased repeat purchase by netizens. Therefore, the null hypothesis is rejected. Thus, consumer data security has significant connection with repeat purchase behaviour of e-tail customers in Rivers State.

Table 6 also shows the result of test of correlation between consumer data security and positive WoM. The Table display a rho coefficient of 0.602\*\* on the nexus between the variables, with a  $p$  of  $0.000 < 0.01$ . This indicates that the association between consumer data security and positive WoM is positive, strong and statistically significant. The implication is that increased consumer data security on the part of e-tailers will result to increased positive WoM

behaviour of netizens. Therefore, the null hypothesis is rejected. Thus, consumer data security is linked significantly to positive WoM of e-tail customers in Rivers State.

**Table 7: Correlation of Access to Appropriate Information and Measures of E-loyalty**

			AAI	Repeat Purchase	Positive WoM
Spearman's rho	AAI	Correlation Coefficient	1.000	.757**	.639**
		Sig. (2-tailed)	.	.000	.000
		N	334	334	334
	Repeat Purchase	Correlation Coefficient	.757**	1.000	.620**
		Sig. (2-tailed)	.000	.	.000
		N	334	334	334
	Positive WoM	Correlation Coefficient	.639**	.620**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	334	334	334

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

Source: SPSS output of data analysis on online consumer protection initiatives and e-loyalty (2019).

Table 7 shows a rho coefficient of 0.757\*\* on the association between access to appropriate information and repeat purchase. This shows a strong correlation between the variables. The positive value of the correlation coefficient indicates that the nexus between the variables is positive, hence, improved access to appropriate information will accentuate repeat purchase behaviour of netizens. The pv of  $0.000 < 0.01$  indicates that the link between the variables is statistically significant, thus, the finding can be generalized to the study population. Based on this result of significant relationship between access to appropriate information and repeat purchase, the null hypothesis is rejected.

Table 7 further shows a rho coefficient of 0.639\*\* between access to appropriate information and positive WoM. The rho coefficient of 0.639\*\* means that the correlation between access to appropriate information and positive WoM is positive and strong. The pv of  $0.000 < 0.01$  produced by test means that the relationship between the focal variables is statistically significant. The null hypothesis is thus rejected, and restates that access to appropriate information has significant correlation with positive WoM of e-tail customers.

**Table 8: Correlation matrix of Fair Contract Terms and Measures of E-loyalty**

			FCT	Repeat Purchase	Positive WoM
Spearman's rho	FCT	Correlation Coefficient	1.000	.664**	.791**
		Sig. (2-tailed)	.	.000	.000
		N	334	334	334
	Repeat Purchase	Correlation Coefficient	.664**	1.000	.620**
		Sig. (2-tailed)	.000	.	.000
		N	334	334	334
	Positive WoM	Correlation Coefficient	.791**	.620**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	334	334	334

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

Source: SPSS output of data analysis on online consumer protection initiatives and e-loyalty (2019).

Table 8 indicates a rho coefficient of 0.664\*\* on the linear correlation between fair contract terms and repeat purchase. This high rho coefficient means that there is a strong rank correlation between fair contract terms and repeat purchase of e-tail customers in Rivers State. The positive sign of the correlation coefficient implies that improved fair contract terms will result to increased repeat purchase from netizens. The p-value of 0.000 which is less than the level of significance a (0.01) indicates a statistically significant connection between fair contract terms and repeat purchase. Hence, the study rejects the null hypothesis.

Table 8 also indicates a rho coefficient of 0.639\*\* on the linear correlation between fair contract terms and positive WoM. This high value means that there is a strong rank correlation between fair contract terms and positive WoM of e-tail customers in Rivers State. The positive sign of the correlation coefficient implies that perceived improvement in fairness of contract terms will result to increase in positive WoM behaviour of e-tail customers. The pv of 0.000 which is less than the level of significance (0.01) means that the correlation between fair contract terms and positive WoM is statistically significant. The study thus rejects the null hypothesis.

### **Discussion of Findings**

This study examined the nexus between online customer protection initiatives and e-loyalty. The empirical analyses conducted reveal that online customer protection initiatives relates to e-loyalty. Particularly, the study observes that consumer data security relates moderately to repeat purchase and strongly to positive WoM, that access to appropriate information relates strongly to repeat purchase and positive WoM and that fair contact terms relate strongly to repeat purchase and positive WoM. Also, all the relationships were found to be statistically significant. These findings support the observation of previous studies. Flavian and Guinalu (2005) observed that e-loyalty depends on perceived privacy regarding the handling of their private data. Protection of customer personal data is critical to acquiring and retaining e-customers. Bloom (1994) posits that consumer data protection and intrusion of privacy are common problems of e-commerce. Hence, unauthorized access, collection storage and transfer of consumers' personal data adversely affect e-loyalty. Privacy and security of personal data concerns keep individuals away from online shopping. Ateke and Ogbuji (2017) found that customers have very strong views about their privacy and security online. It is therefore the duty of e-tailers to protect their customers from cybercriminals; and to make them understand that too much concern about privacy and security makes e-commerce difficult; and that e-tailers need to employ tracking software to record information about customers in order to develop personalized offerings.

The findings of the study also reinforce the OECD (2016) guidelines that should be observed by e-tailers in handling consumers' personal information. E-commerce practices that (1) protect consumer privacy, (2) ensures that the collection and use of consumer personal data follows lawful, transparent and fair means, (3) enable consumer participation and choice, (4)

and provide reasonable security safeguards are likely to induce e-loyalty. Aberg and Shahmehri (2003) posit that online consumers will favour e-tailers that provide access to appropriate information. These authors therefore advanced that e-tailers should introduce a platform for easy access to information by developing live help technology that enable online consumers to interact directly with human customer service representatives. The conviction is that integrating human assistance into web pages makes a site more interactive, improves site atmosphere and increases customers' loyalty to the site.

Furthermore, the findings of this study resonates the position that fair contract term is a major concern of netizens (Ateke & Ogbuji, 2017) which is capable of conducting e-loyalty. E-consumers are mindful of the contracts they enter in their e-transactions. They avoid contract that disadvantages them unduly, and prefer contracts that do not cause significant imbalance between their rights and obligations and those of e-tailers. Thus, e-tailers must ensure that contract terms are not detrimental to buyers in order for relationships to be developed. Terms of contract must be simple to understand and enable consumers make informed choices. They should also be up-front and open, and should protect consumers in same measure as it does e-tailers.

### **Conclusion and Recommendations**

Online consumer protection has become essential due to the increasing utilization of the internet and internet-enabled media as marketing tools, and consumers' reliance on same for convenient shopping. Advances in technology and the incursion of the internet and internet-enabled platforms in marketing practice, and in the personal and social lives of individuals can only accentuate this phenomenon. The scramble for the patronage and loyalty of netizens by firms further makes online consumer protection a necessity. Businesses across the globe have created online presence to complement their offline operations. The internet has facilitated innovation, and more aspects of marketing, including new product idea generation, test marketing, delivery of product, etc. are carried out using internet-enabled media. Online presence also increases the reach of a business, and diversifies its customer base, extending it from the traditional face-to-face consumers in the local market to online consumers who transact from afar, using the internet as a platform.

On the strength of the results of the analyses and the discussions that followed, the study concludes that e-loyalty in terms of repeat purchase and positive WoM depends on online consumer protection initiative represented as access to appropriate information, fair contract terms and consumer data security. Alternately, it may be stated that online consumer protection initiative represented as access to appropriate information, fair contract terms and consumer data security predicts loyalty of e-tail customers in Rivers State in terms of repeat purchase and positive WoM. The study thus recommends that e-tailers in Rivers State with a desire to drive or improve e-loyalty should invest in technology that guarantees access to appropriate information, fair contract terms and consumer data security and communicate same to netizens and also engage in trust-building activities to endear brands to netizens in order to earn their loyalty.

The study also recommends that regulators of e-commerce should invest in

technologies that help in identifying and endorsing e-tailers, and also institute strong regulations on the conduct of e-commerce so as to prevent fraudsters from preying on the vulnerabilities of netizens. Further, the study recommends that regulatory bodies should exert more efforts to curb the malpractice of e-tailers with confidentiality, privacy and security of consumer data in order to improve the integrity of online transactions and boost consumers' confidence in e-tailers.

## Reference

- Aberg, J., & Shahmehri, N. (2003). Live help systems. In J. Ratner (Ed.). *Human factors and web development* (2<sup>nd</sup> edition). Mahwah, NJ: Lawrence Erlbaum Associates.
- Alam, S. S., & Noor, M. K. M. (2009). ICT adoption in small and medium enterprises: An empirical evidence of service sectors in Malaysia. *International Journal of Business and Management*, 4(2), 112–125.
- Amani, Z. (2015) Commitment as a mediator of the relationship between trust and relationship loyalty to retailer. *Journal of Business Studies Quarterly*, 6(3), 144-163.
- Chiou, J. S. (2004). The antecedents of consumers' loyalty toward Internet service providers. *Information and Management*, 41(6), 685-695.
- Ateke, B. W., & Kalu, S. E. (2019). Positive interaction and customer citizenship behaviour in the healthcare sector. *International Journal of Innovations in Marketing Research and Entrepreneurial Studies*, 8(1), 62-77.
- Ateke, B. W., & Ogbuji, C. N. (2017). An exploratory study on online consumer protection concerns: The Nigerian case. *FUO Journal of Business and Finance*, 7(2), 92-100.
- Fang, Y., Qureshi, I., Sun, H., McCole, P., Ramsey, E., & Lim, K. H. (2014). Trust, satisfaction, and online repurchase intention: The moderating role of perceived effectiveness of e-commerce institutional mechanisms. *MIS Quarterly*, 38(2), 402-427.
- Flavian, C., & Guinaliu, M. (2005). The influence of virtual communities on distribution strategies in the Internet. *International Journal of Retail & Distribution Management*, 33(6), 405-425. DOI: 10.1108/09590550510600843.
- Gremler, D. D., Gwinner, K. P., & Brown, S. W. (2001). Generating positive word-of-mouth communication through customer-employee relationships. *International Journal of Service Industry Management*, 12(1), 44-59.
- Gupta, R., & Kabadayi, S. (2010). The relationship between trusting beliefs and Web site loyalty: The moderating role of consumer motives and flow. *Psychology & marketing*, 27(2), 166-185.
- Guritno, S., & Siringoringo, H. (2013). Perceived usefulness, ease of use, and attitude towards online shopping usefulness towards online airlines ticket purchase. *Procedia Social and Behavioral Sciences*, 81, 212-216.
- Hanaysha, J. (2016). Examining the link between word of mouth and brand equity: A study on international fast food restaurants in Malaysia. *Journal of Asian Business Strategy*, 16(3), 41-49.
- Israel G. D. (2013). *Determining sample Size*. Retrieved August 2018 from <http://www.edis.ifas.ufl.edu>.

- Jalilvand, M. R., Salimipour, S., Elyasi, M., & Mohammadi, M. (2017). Factors influencing word of mouth behaviour in the restaurant industry. *Marketing Planning & Intelligence*, 35(1), 81-110.
- Jiang, Z., & Benbasat, I. (2007). The effects of presentation formats and task complexity on online consumers' product understanding. *MIS Quarterly*, 31(3), 475-500.
- Kim, J., Jin, B., & Swinney, J. L. (2009). *The role of e-tail quality, e-satisfaction, and e-trust in online loyalty development process*. *Journal of Retailing and Consumer Services*, 16(4), 239-247.
- Kuriachan, J. (2014). Online shopping problem and solution. *New Media and Mass Communication*, 23, 1-4
- Kwon, W., & Lennon, S. J. (2009). What includes online loyalty? Online versus offline brand images. *Journal of Business Research*, 62(5), 557-564.
- Mandilas, A., Karasavoglou, A., Nikolaidis, M. & Tsourgiannis, L. (2013). Predicting consumer's perceptions in on-line shopping. *Procedia Technology*, 8, 435-444.
- Mugobo, V. V., & Malunga, P. (2015). Consumer protection in South Africa: Challenges and opportunities for furniture retailers in Cape Town, South Africa. *Mediterranean Journal of Social Sciences*, 6(1), 224-232.
- Nunally, J. C. (1978). *Psychometric theory*. 2<sup>nd</sup> Edition. New York: McGraw-Hill.
- Nunkoo, R., & Ramkissoon, H. (2013). Travelers' e-purchase intent of tourism products and services. *Journal of Hospitality Marketing & Management*, 22 (5), 505-529.
- Ogan, J. E., Lemon, K. N., & Libai, B. (2004). Quantifying the ripple: Word-of-mouth and advertising effectiveness. *Journal of Advertising Research*, 44(3), 271-280.
- OECD (2016). *Consumer protection in e-commerce: OECD recommendation*. Paris: OECD Publishing. Retrieved February 2017 from <http://dx.doi.org/10.1787/9789264255258-en>
- Reichheld, F. (1995). Loyalty and the renaissance of marketing. *Marketing Management*, 2(4), 10-21.
- Rosen, S. (2001). Sticky web site is key to success. *Communication World*, 18(3), 36-37.
- Seyyed J. R., Amini, A., & Amini, Z. (2010). Effect of brand on business customer loyalty. *Journal of Business Management Perspective*. 9(3), 59-74.
- Singsangob, A. (2015). Thailand's consumer protection in electronic commerce: Law and regulations. *Proceedings of the fourth international conference on e-business*, November, 19-20, Bangkok, Thailand.
- Svantesson, D., & Clarke, R. (2010). A best practice model for e-commerce protection. *Computer Law and Security Review*, 26 (1), 31-37.
- Wokoma, M. T., & Toruyouyei, E. G. (2019). Brand identity and customer loyalty of food and beverages firms in Port Harcourt. *Rivers State University Journal of Contemporary Marketing*, 4(Special Edition), 45-53.
- Zhang, T. C., Agarwal, R., & Lucas, H. C. (2011). The value of it-enabled retailer learning: Personalized product recommendations and customer store loyalty in electronic markets, *MIS Quarterly*, 35(4), 859-881.



## Green Product Marketing and Achievement of Global Environmental Sustainable Goals in South-South of Nigeria

Nwadike, George Ugonna<sup>1</sup>, Idenedo, Wisdom Otite<sup>1</sup> and Okoro, Rowland Chukwuma<sup>2</sup>

<sup>1</sup>Department of Marketing, Ignatius Ajuru University of Education Port Harcourt, Rivers State, Nigeria

<sup>2</sup>Department of Marketing, Rivers State University, Nigeria

---

**Abstract:** *This study examined green product marketing and achievement of global environmental sustainable goals in the south-south zone of Nigeria. Data were collected through a structured questionnaire from 292 marketers and consumers in the six states in the south-south zone. The collected data were analyzed and the hypotheses were tested with the Pearson Product Moment Correlation (r) with the aid of SPSS version 21.0. The findings revealed that there is positive and significant relationship between marketing of energy efficient products and achievement of affordable and clean energy. The study also found a positive and significant relationship between marketing of energy efficient products and achievement of clean water and sanitation. A positive and significant relationship was found between marketing of renewable energy products and achievement of affordable and clean energy. The study also reported a positive and significant relationship between marketing of renewable energy products and achievement of clean water and sanitation. A positive and significant relationship was equally found between marketing of recycling products and achievement of affordable and clean energy. The study also reported a positive and significant relationship between marketing of recycling products and achievement of clean water and sanitation. From the findings, it was concluded that green product marketing significantly relates with achievement of global environmental sustainable goals. Based on the above drawn conclusion, it was recommended that manufacturing companies in south-south zone of Nigeria should practice green marketing as it would enhance the achievement of global environmental sustainable goals in the zone.*

**Keywords:** *Green Product Marketing, Achievement of Global Environmental Sustainable Goals, Energy Efficient Product, Renewable Energy Products, Recycling Products, Affordable and Clean Energy, Clean Water and Sanitation*

---

### Introduction

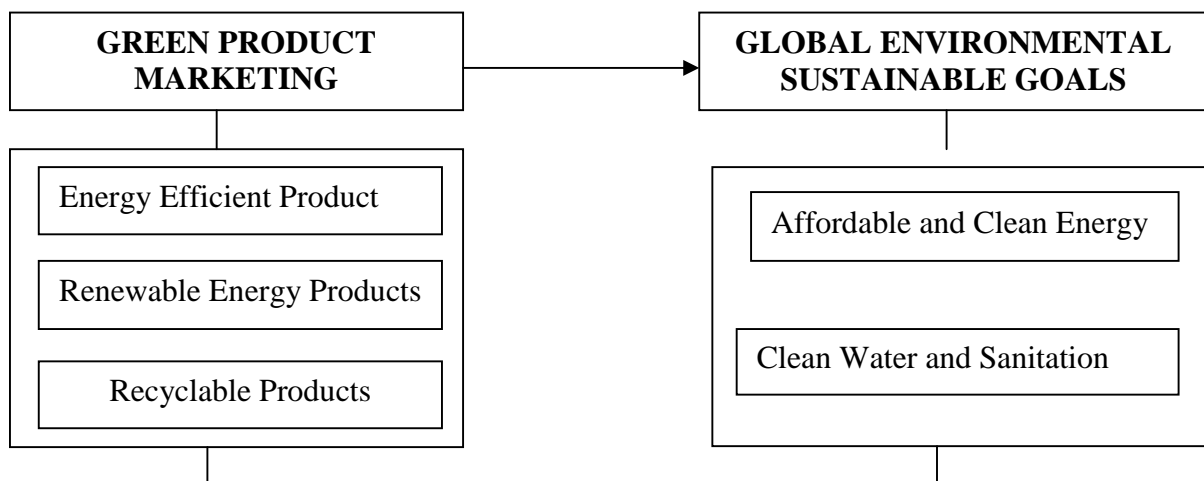
The world today is threatened by environmental problems such as climate change, global warming, ozone depletion, excessive wastes, pollution, lack of good water and other man-made dangers. These environmental problems have become so worrisome to world leaders and international organizations in view of its implications on future generations. The quest to achieve the global sustainable environmental goals has prompted governments worldwide to put pressure on companies to switch from their conventional product marketing to green product marketing. The pressure being mounted on companies to produce only green products stemmed from the recommendations reached on the 2002 Johannesburg Summit which called

for a ten-year framework of programmes in support of national and zoneal initiatives to accelerate the shift from conventional products to green product marketing as earlier stated (United Nation, 2007). This call is being implemented by world leaders in their respective countries through the various environmental policies and programmes initiated by the governments. Today, many companies globally are now switching towards from conventional product marketing to green products to relief themselves from the pressures being mounted on them to be environmental conscious.

Nigeria as a nation is presenting struggling to achieve the global sustainable environmental goals. Successive governments in the country particularly those in the South-South zone have established various policies and programmes aimed at achieving the global sustainable environmental goals by the year 2030. However, despite the policies and programmes initiated by successive governments in this zone, no significant progress has been made as the six states in the south-south zone are still struggling to achieve environmental sustainability. The environment in the south-south zone has been jeopardized, degraded and polluted following the increasing waste and decreasing use of renewable energy sources (Ibok & Etuk, 2014). The unsustainable production activities in the zone have further contributed to the environmental degradation experienced today in the zone. Considering the poor state of the environment in south-south, many people have doubted if the South-South Nigeria can ever achieve the global sustainable environmental goals by the year 2030.

It is believed that green product marketing can help to achieve the global environmental sustainable goals (affordable energy, clean water and sanitation, and good health and well-being) by the year 2030. Although some international bodies and scholars have supported green product marketing as a means of achieving the global sustainable environmental goals (e.g. United Nations, 2007; World Health Organizations; Ongisa, 2013), however, empirical evidence that justify this claim are lacking. On this premise, this study examined green product marketing and achievement of the global environmental sustainable goals.

This study is built on the assumption conceptualized below





**Figure 1: Conceptual Framework of Green Product Marketing and Global Environmental Sustainable Goals.**

Source: Sanjay and Gurmet (2004) and Global Sustainable Development Goals (2015).

**Purpose of the Study**

The purpose of this study was to examine the link between green product marketing and achievement of global environmental sustainable goals in the south-south zone of Nigeria. The specific objectives were to:

1. determine the relationship between marketing of energy efficient product and environmental sustainable goals in the south-south zone of Nigeria.
2. investigate the relationship between marketing of renewable energy products and global environmental sustainable goals in the south-south zone of Nigeria.
3. explore the relationship between marketing of recyclable products and global environmental sustainable goals in the south-south zone of Nigeria.

**Research Questions**

In order to adequately address the objectives of the study, the following questions were put forward:

1. To what extent is the relationship between marketing of energy efficient products and global environmental sustainable goals in the south-south zone of Nigeria?
2. To what extent is the relationship between marketing of renewable energy products and global environmental sustainable goals in the south-south zone of Nigeria?
3. To what extent is the relationship between marketing of recycling products and global environmental sustainable goals in the south-south zone of Nigeria?

**Research Hypotheses**

The following hypotheses were formulated to guide this study:

- Ho<sub>1</sub>: There is no positive and significant relationship between marketing of energy efficient products and achievement of affordable and clean energy.
- Ho<sub>2</sub>: There is no positive and significant relationship between marketing of energy efficient products and achievement of clean water and sanitation.
- Ho<sub>3</sub>: There is no positive and significant relationship between marketing of renewable energy products and achievement of affordable and clean energy.
- Ho<sub>4</sub>: There is no positive and significant relationship between marketing of renewable energy and achievement of clean water and sanitation.
- Ho<sub>5</sub>: There is no positive and significant relationship between marketing of recycling products and achievement of affordable and clean energy.
- Ho<sub>6</sub>: There is no positive and significant relationship between marketing of recycling products and achievement of clean water and sanitation.

**Review of Related Literature**

**Sociological baseline theories**

A number of theories and models have been developed to explain how an organization can manage and maintain customer relationship. However, this study is anchored on the

environmental economic theory which was developed in 1966 by Boulding. The theory states that the eco-system and the natural resources may be depleted in the course of pursuing economic development. The environmental economic theory tends to explain the relationship between cost and benefits. According to the theory, there are externalities associated with every cost (Cheng, 2011). The environmental economic theory believes that economic growth can still be achieved if marketers pay adequate attention to the environment while trying to satisfy needs. The theory believes that environmental challenges facing the world today have their roots in the failure of the present marketers to protect the environment. Environmental economic theory tends to strike a balance between satisfying needs and preserving the environment.

The environmental economic theory is very relevant in explaining the relationship between green product marketing and the achievement of global environmental sustainability goals. The theory explains that the desire to adopt green marketing is to protect the environment from pollution and sustain it for future generations. The environmental economic theory believes that through effective practice of green product marketing, the environment will be safe for the present and future generations. It holds the concept that while marketing activities are encouraged to achieve economic development, the environment should also be protected from pollution. Since green product marketing reduces greenhouse gas emissions, ecological footprints, it becomes obvious that the global environmental sustainability goals can be achieved.

### **Concept of Green Product Marketing**

The concept "green product marketing" has been defined in various ways by different scholars and writers. Some scholars described green product marketing as the production and distribution of products with environmental characteristics (Sarkar, 2012). However, green product marketing is associated with products that have the capacity to be recycled, phosphate free, refillable, and energy efficient (Sanjay & Gurmet, 2004). Tuten (2013) defined green product marketing as an organization's efforts at designing products that have the potentials of reducing energy consumption, saving energy and wastes from the environment. Kinoti (2011) described green product marketing as the production and distribution of products that have minimal impact on the environment. Herbig et al (2007) defined that green product marketing as the production and distribution of products that have one or more of the following characteristics; they are less toxic; are more durable; contain reusable materials and/or are made of recyclable materials.

Green product marketers take the environment into consideration in their quest to satisfy consumer needs. They designed their products to satisfy needs and at the same time protect the environment from degradation and pollution (Alsmadi, 2007). Green product marketing is part of the new marketing approaches which do not just refocus, adjust or enhance existing marketing thinking and practice, but seeks to challenge those approaches and provides a substantially different perspective. In more detail, green product marketing belongs to the group of approaches which seek to address the lack of fit between conventional marketing and the ecological realities of the wider marketing environment (Belz & Peattie,

2009). Awan (2011) stated that green product marketers understand the need for environmental protection and this is why they venture into green product development. Green product marketers produce products for the safe of the environment. Sanjay and Gurmet (2004) stated that green products have the environmental benefits of saving energy, improving health condition (organic food), reducing wastes and greenhouse gas emissions.

Green product marketing plays a vital role in protecting the environment from degradation and pollution. It helps to keep the environment safe for the present and future generations. Chen and Chang in Kong, Harun, Sulong and Lily (2015) suggested that companies should develop products with both green features and high-value attributes to attract consumers. They further argued that increasing consumer perceived value about green products may ease customer skepticism about green products and enhance consumer purchase intention.

Green products take various forms but have a general benefit of preserving the environment. Some of the green products are organic in nature while others are recyclable and energy efficient products. In this study, organic food, energy efficient products and recyclable products are use as the key dimensions of green product marketing. These green products are discussed in details below:

#### **Energy Efficient Product**

An energy efficient product is a consumer product that performs the same functions as its non-energy efficient substitutes but reduce energy consumption (Sanjay & Gurmet, 2004). Polonsky (2001) posited that energy efficient products are produced to reduce the overall energy consumption and consumers' energy bill. Energy efficient products do not have special features but they help to eliminate inefficient practices which are associated with traditional and commonly used household items. Examples of energy efficient products are efficient light bulbs, advanced power strips, smart switches, low-flow faucets and shower leads. Albino (2009) stated that energy efficient products or devices have huge environmental benefits because they help to reduce energy use, and the amount of energy that needs to be generated through burning of fossil fuels leading to reduced greenhouse gas emissions that contribute to global climate change. Dangelico (2010) opined that many efficient light bulbs use LEDs which is more efficient than incandescent bulbs in consumption and energy lifetime.

The environmental impact of energy efficient practices at a person's home can contributed a large amount of greenhouse gas emissions. In 2014, the United States domestic sector alone produce approximately 21% of greenhouse gas emissions and of this amount, 68% of these residential emissions occur as a result of electricity use which make up the other 32% (Philip, 2018). If this large percentage of household greenhouse gas emissions is attributed to electricity use, then it becomes obvious that energy efficient products can help to reduce the percentage of household greenhouse gas emissions. In most cases, the money consumer saves from using energy efficient products translate into fewer greenhouse emissions due to the nature of electricity generation. For example, the electricity consumed for lighting makes up about 20% of the average electricity bill in the US (Case, 2014). If a consumer decides to replace his incandescent light bulbs with Energy Star qualify CFL bulbs, he will reduce his amount of electricity consumed for lighting at his home by 75%. If every Nigeria home replaces

incandescent light bulb with a CFL bulb, it will save enough electricity in a year which would reduce the annual greenhouse gas emission. Seyfang (2007) stated that CFL bulbs have the potentials of reducing mercury emissions.

### **Renewable Energy Products**

Renewable energy products are products which are produced from renewable energy sources. Renewable energy is energy that is obtained from renewable resources, which are naturally replenished on human timescale, such as sunlight, wind, rain, tides, waves and geothermal heat (Dangelico, 2010). Examples of renewable energy products are solar generator, solar charger and lights, solar roofs vents, water conservation, Exeltech XP1100 power inverter LED area lights, and energy efficient direct current (DC) alternating current (AC) appliances (Tuten, 2013). Solar generator is a renewable energy product that converts direct energy from sunlight into direct current electricity. Inverter as a renewable energy product converts direct current power output of solar arrays or wind turbine into a clean alternating current for appliances (Case, 2014). Solar charge controller is another renewable energy product that regulates the voltage and current coming from the power voltage (PV) modules to the battery (Albino, 2009). The solar PV module is a renewable energy product that converts directly convert sunlight into direct current electricity (Speier, 2016).

Renewable energy products help to minimize energy costs and reduce carbon footprint. Such products capitalize on the power of nature to reduce operating costs and protect the environment. Dangelico (2010) stated that renewable energy products are more efficient, cleaner and less expensive than traditional conventional energy products. Marketing renewable energy products provide energy, money and environmental benefits. For instance, electricity suppliers or marketers are now offering clean and efficient green electricity to its customers to reduce energy consumption, utility bills and carbon footprint in the environment. Beyond the reduction in utility bills and environmental footprint, renewable energy products can reduce operations and maintenance cost by taking advantage of natural resources (Albino, 2009).

Renewable energy products can also help marketers to boost their public image by demonstrating commitment to protect the environment (Herbig et al, 2007). Renewable energy products like solar photovoltaic can yield high rates of return. As rates of utility increase, the financial benefits of solar become comparable to the environmental advantages. Saxena and Khandelwal (2010) stated that solar energy from renewable energy source can replace fossil fuel which pollutes the environment. By replacing fossil fuel, renewable energy products keep the environment safe and healthier for better living. Tuten (2013) posited that renewable energy products help to prevent fossil fuel and improve the health condition and living standard of the people.

### **Recycling Products**

Recycling products are products which are produced using variety of recycling materials (Herbig et al., 2007). Products produced from variety of materials can be recycled using different processes. Examples of recycling products are asphalt and tarmac, gypsum, plaster and plasterboard products, lead-acid batteries, etc. Dangelico (2010) stated that concrete aggregates can be recycled into gravel which is used for new building project. This process involves collecting concrete aggregates from demolition sites and put into a crushing machine

alongside with bricks, asphalt, dirt and rocks. The machine crushes the concrete into small pieces which are then used as gravel for new building project. If crushed recycled concretes are free from contaminants, they can be use as dry aggregates for new concrete. Broken down bricks can be used for railway ballast and gravel paths.

Recycling asphalt and tarmac products are becoming more and more demanding in the market. While asphalt including asphalt shingle can be melted down and its parts recycled, tarmac scalping is produced when roads are scarified before new surface is laid. Saxena and Khandelwal (2010) stated that recycled product like gypsum; plaster and plasterboard help to reduce the volume of hydrogen sulfide gas. Before the invention of recycled gypsum, about 17% of gypsum products are wasted during the manufacturing (production) and installation processes. Through, mechanical process, gypsum waste from demolition, refurbishing and new construction activities can be recycled, and the recycled gypsum can replace virgin gypsum product in the gypsum industry. Gypsum wastes from construction activities are not the only waste that can be recycled, waste wallboard from construction and demolition sites can also be recycled into new wallboards, thereby reducing wastes in the environment. Wallboard, plasterboard, and gypsum can now be re-used or recycled. Hence, disposal of gypsum materials are strongly discourage in some landfill sites. Saxena and Khandelwal (2010) observed that some landfill sites have banned dumping of gypsum materials because of their tendency to increase the volume of hydrogen sulfide gas.

Recycled lead-acid batteries particularly those in automobiles have increased significantly in the developed nations like the US. Singh and Pandey (2012) stated that recycling rate of lead-acid batteries in the US has increased to 90% with the new batteries containing up to 80% recycled materials. Biodegradable wastes such as kitchen and garden wastes can be recycled into useful fertile topsoil through the process of composition which allows natural aerobic bacteria to break down the waste into fertile topsoil (Speier, 2016). Tuten (2013) posited that electronic wastes from discarded computers, television and mobile phones can be recycled into useful products such as new computers, flat-screen television and new mobile phones. Metal products such as iron, steel, aluminum and food metal cans be recycled for domestic use. For instance, metal such as iron, steel, aluminum and food metal cans be recycled for domestic use, while building metals such as copper and zinc can be recycled into a useful products by specialized companies like specialized scrap dealers on car breakers (Albino, 2009). . In some developed countries such as United Kingdom (UK), United States of America (USA), Germany and Netherland, the direct disposal of electronic and metal equipments (waste) such as computers, television, mobile phones, iron, steel, aluminum, as copper and zinc have been banned due to the toxic contents in some parts of the components (Tuten, 2013).

The environmental benefit of using recycling products is that they help to reduce wastes in the environment and improve the health condition and well-being of the people in the society. Case (2014) agrees that recycled products have the environmental benefits of reducing wastes, pollution and degradation as well as improving the health condition of the citizenry. Speier (2016) stated that a country which encourages the use and marketing of recycled products will enjoy good, safe and healthier environment. Such country will be able to achieve environmental sustainability by the year 2030. Tuten (2013) posited that recycled

products are environmentally friendly products which have the benefits of protecting the environment from excessive waste and litigation. Such products help to improve the health condition and well-being of the people by reducing excessive wastes which is detrimental to human health.

### **Global Environmental Sustainable Goals**

The global environmental sustainability goals are clearly spelled out in the 2015 Global Sustainable Development Goals. The 2015 Global Sustainable Development Goals contains 17 goals which include: 1. No poverty 2. Zero hungry 3. Good health and well-being 4. Quality education 5. Gender equality 6. Clean water and sanitation 7. Affordable and clean energy 8. Decent work and economic growth 9. Industry innovation and infrastructures 10. Reduced inequalities 11. Sustainable cities and communities 12. Sustainable consumption and production 13. Climate action 14. Life below water 15. Life on land 16. Peace, justice and strong institutions, and 17. Partnership for the goals.

These 17 goals spelled out by the international community covers all aspects of life including health, education, political, social, legal, economic and environmental aspects. The focus of this study is on the environmental sustainability goals which include goal number 6, 7, 13, 14, and 15 listed above. These environmental goals are crucial for various reasons. However, this study will focus on two of the five environmental goals captured in the 2030 Agenda. The two goals are clean water and sanitation, and affordable and clean energy. Achieving clean water and sanitation, and affordable and clean energy is crucial to the international community following the increasing rate of environmental degradation, pollution, lack of good drinking water and greenhouse gas emission from dirty energy sources - which contribute majorly to climate change.

The various continents including Europe, Asia, North America, Africa, etc are strongly aware of the Global Environmental Sustainability Goals which are met to reduce and ultimately stop waste, climate change and pollution, caused by human activities (Schmidheiny, 2002). Europe is contributing to environmental pressures and accelerating feedbacks in other parts of the world through its dependence on fossil fuels, mining products and other imports. Therefore, Europe needs to increase its environmental sustainability efforts so as to achieve the Global Environmental Sustainability Goals. Hasna (2007) stated that Europe and America need to be more conscious of the environmental impact of pollution, waste and climate change since they are the major importer of fossil fuels and mining products in the world. In fact, environmental risks can affect the technological, political, economic and social megatrends. Today, as environmental issues are considered serious by stakeholders (organizations, governments, scientists, and researchers), many improvements have been made in terms of life changes when new technologies are implemented. Indeed, the environment can increase and accelerate technologies. For example, lots of devices or mechanisms are designed and built in order to reduce the quantity of pollution in the air. Electric buses or the availability of bicycles in cities are ways, among others, which enable the worldwide population to minimize the effects of environmental risks. Stakeholders force and promote new and better ways to address environmental risks (Princen, 2003).

### **Affordable and Clean Energy**

Affordable and clean energy is one of the Global Sustainable Development Goals that make up the 2030 Agenda. The United Nations Development Programmes (2016) reported that about

three million of people rely on coal, wood and charcoal for cooking and heating, while the number people with access to electricity have increased by 1.7 billion (United Nations Development Programmes, 2011). These sources of energy are the major contributors to climate change, accounting for about 60% of the total global greenhouse gas emissions (UNDP, 2011). Throsby (2008) stated that power generation is the major cause of air pollution and global warming. He noted that most of the electricity generated globally comes from power stations that use fossil fuels such as coal and oil. Coal, natural gas and oil produce most of the power (electricity) but come with large volume of greenhouse gas emission which is harmful to the environment. The power stations burn the fossil fuels to produce electricity and in the process a lot of toxic chemical and greenhouse gas emission including carbon dioxides and methane are released into the air and water, causing environmental and health challenges. This is why coals, natural gas and oil are called dirty sources of energy. Uberoi (2007) noted that the releasing of toxic chemical and greenhouse gas emission including carbon dioxides and methane into the air is what is causing the Earth's atmosphere to warm which scientists say will cause climate change. It is obvious that these dirty sources of energy will threaten the habitat of all living things.

To address these environmental challenges, the international community sets a goal of achieving affordable and clean energy by the year 2030. Clean energy is a energy source that create less pollution and help to keep the environment safe (Shi, 2010). It is an energy sources that reduce greenhouse gas emissions that lead to climate change. Such energy is from nuclear and natural sources. Uberoi (2007) posited that nuclear and natural sources of energy produce very little amount of greenhouse gas emission once it is operated. They are also renewable which implies that they can be used over and over again. Solar, wind and water are good examples of clean energy sources (Shi, 2010). Nuclear power is "clean" from emissions standpoint and the power plants produce no air pollution when they are operating.

The international community sets a goal of achieving an affordable and clean energy by the year 2030. The global population is increasing on a daily basis and as the population continues to increase, the demand for affordable and clean energy will increase in the same direction. The global economy relies on fossil fuels for electricity and heating, and this increase the volume of greenhouse gas emissions that is responsible for climate change (Schmidheiny, 2002). Efforts are being made by world leaders to encourage clean energy. The efforts to encourage clean energy have led to 20% increase in power generated from renewable energy sources in 2011 (UNDP, 2016). Wang (2006) reported that one out of every five persons lack access to electricity and as such there is need to increase the supply of renewable energy across the world to meet the growing demand for electricity, ensuring universal or global access to affordable electricity by the year 2030 means investing in clean energy sources such as solar, thermal and wind. The global electricity consumption can be reduced drastically by using clean energy. Expanding infrastructure and upgrading technology to provide clean energy in all developing countries is a crucial goal that can both encourage growth and help the environment (United Nations Development Programme, 2016).

### **Clean Water and Sanitation**

Universal access to clean water and sanitation is among the 17 Global Sustainable Development Goals that make up the 2030 Agenda. Achieving clean water and sanitation by the year 2030 is an environmental sustainability goal. The international community intends to achieve clean water and sanitation in both developed and developing countries of the world. The specific targets as outlined by the UNDP Department of Economics and Social Affairs Division for Inclusive Social Development include:

- To achieve universal and equitable access to safe and affordable drinking water for all by the year 2030.
- To achieve access to adequate and equitable sanitation and hygiene for all, and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.
- To improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
- To substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and substantially reduce the number of people suffering from water scarcity.
- To implement integrated water resources management at all levels including through trans-boundary cooperation as appropriate.
- To protect and restore water related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.
- To expand international cooperation and capacity building support to developing countries and programmes, including water harvesting, desalination, water efficiency wastewater treatment, recycling and reuse technologies.
- To support and strengthen the participation of local communities in improving water and sanitation management by 2030 (UNDP, Department of Economics and Social Affairs Division for Inclusive Social Development, 2016).

### **Empirical Review**

Some related empirical studies have been conducted on green product marketing and achievement of Global Environmental Sustainability Goals. For instance, Juwaheer *et al.* in Ongisa (2013) carried out an empirical study on the impact of green marketing strategies on consumer purchasing patterns. Their study found that there was a strong positive correlation between marketing strategies and consumer purchasing patterns of green products. The study conducted by Perry and Singh (2002) also showed that consumers play a major role in environmental sustainability since they can exert considerable pressures and demand goals of sustainability or environmental performance from businesses.

Singh and Pandey (2012) examined green marketing and its policies and practices for sustainable development. They studied organic products (food) in the Florida, United States. Their study reported that green product marketing significantly enhance sustainable development. The study also reported that the marketing of green products such as organic



food, renewable energy products, energy efficient products and recyclable products helps to achieve the global sustainable development goals.

In another study conducted on green marketing and sustainable development in the United Kingdom, it was reported that green products such as recycling products, energy saving products, energy efficient products and organic food products significantly help to achieve the sustainable development goals (Szuster (2008). The study concluded that that green product marketing plays a significant role in achieving sustainable development. Other studies conducted in developed nations such as UK (e.g. Macdonald & Oates, 2006; Donaldson, 2005) and in US (e.g. Polonsky, 2001; Prothero, 2008), also discovered the contribution of green product marketing to sustainable development.

Saxena and Khandelwal (2010) carried out a study to determine the relationship between green product marketing and sustainable consumption. The data for their study were collected using a structured questionnaire. After analyzing the data collected, the researchers discovered that the marketing of green products such as recycling products, energy saving products, energy efficient products and organic food significantly encourage sustainable consumption. The study however concluded that green product marketing helps to achieve the Global Sustainable Development Goals.

Seyfang (2007) carried out an empirical study on growing sustainable consumption communities – the case of local organic food networks. The study applied the New Economics Theory to assess the effectiveness of initiatives at achieving sustainable consumption. The result indicated that the initiative was effective at achieving sustainable consumption in each of the dimensions of the appraisal (localization, reducing ecological footprints, community building, collective action and creating new socio-economic institutions). The study also reported that green product marketing helps to encourage sustainable consumption and achieve environmental sustainability.

Sarkar (2012) examined the relationship between green marketing and sustainable development in India. The researcher focused on the challenges and opportunities of green marketing as a viable tool for sustainable development. The result of their study confirmed that green marketing significantly enhance sustainable development. The study also reported that green products such as energy saving products, recycling products, organic food products and energy efficient products significantly enhance sustainable development. The study carried out by Macdonald & Oates (2006) also found a direct relationship between green product marketing and sustainable development. The result of these empirical studies implies that the achievement of sustainable development goals largely depends on effective practice of green marketing.

Ongisa (2013) empirically investigated the relationship between green marketing and green consumption in Kisii County, Kenya. He examined the concepts of green marketing, green purchasing and green consumerism in order to identify the disconnection between the theory and practice. The result of his study showed that Kenyan consumers pay little attention to eco-labelling, eco-advertising. He also reported that product characteristics such as recyclability and easy disposal are rarely considered when making purchases.

Tuten (2013) carried out an empirical study on promoting sustainability by marketing

green products to non-adopters. His study employed the descriptive survey research design where data were collected from green marketers in US. The data collected for the study were analyzed using SPSS 21.0 version and the result showed that green products such as recycling products, energy saving products, energy efficient products and organic food significantly promote sustainability. The study concluded that green product marketing significantly helps to achieve the Global Sustainable Development Goals.

Albino (2009) empirically examined environmental strategies and green product development. His study focused on sustainability driven companies. His study adopted the descriptive survey research design where data were collected from green marketers in UK using a structured questionnaire. After analyzing the data collected using both descriptive and inferential statistics, the researcher reported that green products such as recycling, energy saving products, energy efficient products and organic food significantly enhance environmental sustainability. The study concluded that green product marketing significantly enhance the achievement of the Global Sustainable development Goals.

Dangelico (2010) carried out a study on mainstreaming green product innovation. Her study focused on how green products can help to achieve environmental sustainability. The study employed the descriptive survey research design where data were collected from green marketers in Sweden. The data collected for the study were analyzed using SPSS 19.0 version and the result showed that green products such as recycling products, energy saving products, energy efficient products and organic food significantly promote sustainability. The study concluded that green product marketing significantly helps to achieve the Global Sustainable Development Goals.

### **Gap in Empirical Review**

From the review of empirical literature, two major gaps were noted. First, it was observed that there are limited empirical studies on green product marketing and achievement of global environmental sustainability goals in Nigeria as most of the empirical studies conducted on green product marketing and achievement of global environmental sustainability goals were carried out in the developed countries. Only three notable empirical studies have been carried out in Nigeria which is too scanty. The present study will add to the existing stock of literature within the Nigerian context.

Secondly, it was noted that previous studies did not relate each dimensions of green products (energy efficient products, renewable products and recycling products) directly to the global environmental sustainability goals (affordable and clean energy, and clean water and sanitation) as captured in the 2015 Global Sustainable Development Goals. This has created a gap in empirical literature which the present study has filled.

### **Methodology**

This study investigated the link between green product marketing and achievement of global environmental sustainable goals in South-South Nigeria. The study adopted descriptive survey research design. A marginal estimate of 2,584 marketers and consumers of green products in the six states in the south-south, Nigeria constituted the population of the study. 346 sample size was determined sample size was determined using the Taro Yamen's formula. The

researchers adopted the balloting without replacement to pick 346 respondents from a population of 2,584 marketers/consumers. The researcher decided to adopt the simple random sampling technique because it ensures a fair representation of the population of interest. However, the total number of respondents that participated in the study was two hundred and two (292). Questionnaire was utilized as the instrument of primary data collection. Respondents were required to tick from 1-5 on a Likert scale, where 1= strongly disagree; 2= disagree; 3= neutral; 4= agree; 5= strongly agree. To justify the study instrument, a comprehensive reliability test was conducted, with a threshold of 0.7 while the opinion of scholars and practitioners with relevant experience on the study constructs were used to validate the instrument. The hypotheses were tested using the Pearson Product Moment Correlation Coefficient with the aid of Statistical Package for Social Sciences (SPSS) 21.0 version.

**Table 1: Correlation between marketing of energy efficient products and achievement of affordable and clean energy**

			Energy Efficient Products	Affordable and Clean Energy
Pearson (r)	Energy Efficient Products	Correlation Coefficient	1.000	.712*
		Sig. (2 tailed)	.	.001
		N	292	292
	Affordable and Clean Energy	Correlation Coefficient	.712*	1.000
		Sig. (2 tailed)	.001	.
		N	292	292

\*\*Correlation is significant at 0.01 levels (2 tailed)

\*Correlation is significant at 0.05 levels (2 tailed)

Source: SPSS-generated Output

Table 1 presents the result of correlation analysis carried out on energy efficient products and affordable and clean energy. The result shows that marketing of energy efficient products has a positive correlation with the achievement of affordable and clean energy ( $r = .712^*$ ) and this correlation is significant at 0.05 level as indicated by the symbol \*. As a result of this, the null hypothesis is rejected and the alternate hypothesis is accepted. This means that we then accept that there is positive and significant relationship between marketing of energy efficient products and achievement of affordable and clean energy.

**Table 2: Correlation between marketing of energy efficient products and achievement of clean water and sanitation**

			Energy Efficient Products	Clean Water and Sanitation
Pearson (r)	Energy Efficient Products	Correlation Coefficient	1.000	.704*
		Sig. (2 tailed)	.	.001
		N	292	292
	Clean Water and Sanitation	Correlation Coefficient	.704*	1.000
		Sig. (2 tailed)	.001	.
		N	292	292

\*\*Correlation is significant at 0.01 levels (2 tailed)

\*Correlation is significant at 0.05 levels (2 tailed)

Source: SPSS-generated Output

Table 2 shows the result of the correlation analysis carried out on marketing of energy efficient products and achievement of clean water and sanitation. The result shows a positive correlation between marketing of energy efficient products and achievement of clean water and sanitation ( $r = .704^*$ ) and the symbol \* indicates that this correlation is significant at 0.05 level. Consequently, the null hypothesis is rejected and the alternate hypothesis is accepted. This means that there is positive and significant relationship between the marketing of energy efficient products and achievement of clean water and sanitation.

**Table 3: Correlation between marketing of renewable energy products and achievement of affordable and clean energy**

			Renewable Energy Products	Affordable and Clean Energy
Pearson (r)	Renewable Energy Products	Correlation Coefficient	1.000	.869*
		Sig. (2 tailed)	.	.002
		N	292	292
	Affordable and Clean Energy	Correlation Coefficient	.869*	1.000
		Sig. (2 tailed)	.002	.
		N	292	292

\*\*Correlation is significant at 0.01 levels (2 tailed)

\*Correlation is significant at 0.05 levels (2 tailed)

Source: SPSS-generated Output

Table 3 shows the result of the correlation analysis carried out on marketing of renewable energy products and achievement of affordable and clean energy. The result revealed a positive correlation between marketing of renewable energy products and achievement of affordable and clean energy ( $r = .869^*$ ) and this correlation is significant at 0.05 level as indicated by the symbol \*. Based on this result, the null hypothesis is rejected and the alternate hypothesis is accepted. This implies that there is positive and significant relationship between marketing of renewable energy products and achievement of affordable and clean energy.

**Table 4: Correlation between marketing of renewable energy products and achievement of clean water and sanitation**

			Renewable Energy Products	Clean Water and Sanitation
Pearson (r)	Renewable Energy Products	Correlation Coefficient	1.000	.824*
		Sig. (2 tailed)	.	.002
		N	292	292
	Clean Water and Sanitation	Correlation Coefficient	.824*	1.000
		Sig. (2 tailed)	.002	.
		N	292	292

\*\*Correlation is significant at 0.01 levels (2 tailed)

\*Correlation is significant at 0.05 levels (2 tailed)

Source: SPSS-generated Output

Table 4 presents the result of the correlation analysis carried out on marketing of renewable energy products and achievement of clean water and sanitation. The result showed a positive correlation between marketing of renewable energy products and achievement of clean water and sanitation ( $r = .824^*$ ) and the symbol \* implies that correlation is significant at 0.05. Consequently, the null hypothesis is rejected and the alternate hypothesis is accepted. This means that we then accept that there is positive and significant relationship between the marketing of renewable energy products and achievement of clean water and sanitation.

**Table 5: Correlation between marketing of recycling products and achievement of affordable and clean energy**

			Recycling Products	Affordable and Clean Energy
Pearson (r)	Renewable Energy Products	Correlation Coefficient	1.000	.517*
		Sig. (2 tailed)	.	.003
		N	292	292
	Affordable and Clean Energy	Correlation Coefficient	.517*	1.000
		Sig. (2 tailed)	.003	.
		N	292	292

\*\*Correlation is significant at 0.01 levels (2 tailed)

\*Correlation is significant at 0.05 levels (2 tailed)

Source: SPSS-generated Output

Table 5 presents the result of the correlation analysis carried out on marketing of recycling products and achievement of affordable and clean energy. The result revealed a positive correlation between marketing of recycling products and achievement of affordable and clean energy ( $r = .517^*$ ) and the symbol \* implies that correlation is significant at 0.05. As a result of this, we then reject the null hypothesis and accept the alternate hypothesis which states that there is positive and significant relationship between the marketing of recycling products and achievement of affordable and clean energy.

**Table 6: Correlation between marketing of recycling products and achievement of clean water and sanitation**

			Recycling Products	Clean Water and Sanitation
Pearson (r)	Recycling Products	Correlation Coefficient	1.000	.838*
		Sig. (2 tailed)	.	.003
		N	292	292
	Clean Water and Sanitation	Correlation Coefficient	.838*	1.000
		Sig. (2 tailed)	.003	.
		N	292	292

\*\*Correlation is significant at 0.01 levels (2 tailed)

\*Correlation is significant at 0.05 levels (2 tailed)

Source: SPSS-generated Output

Table 6 shows the result of the correlation analysis carried out on marketing of recycling products and achievement of clean water and sanitation. The result indicates a positive correlation between marketing of recycling products and achievement of clean water and sanitation ( $r = .838^*$ ) and the symbol \* implies that correlation is significant at 0.05. Hence, the null hypothesis is rejected and the alternate hypothesis is accepted. This means that there is positive and significant relationship between the marketing of recycling products and achievement of clean water and sanitation.

### **Discussion of Findings**

This study found a positive and significant relationship between the marketing of energy efficient products and achievement of affordable and clean energy. This finding was obtained from the result of the correlation analysis carried out on the two variables. The result revealed that marketing of energy efficient products has a positive correlation with the achievement of affordable and clean energy ( $r = .712^*$ ) and this correlation is significant at 0.05 level. As a result of this, the null hypothesis was rejected and the alternate hypothesis was accepted. This means that there is positive and significant relationship between marketing of energy efficient products and achievement of affordable and clean energy. This finding is supported by Dangelico (2010) and Albino (2009) as they all believe that the marketing of energy efficient products would help to achieve global sustainable goals including affordable and clean energy.

This study also found a positive and significant relationship between the marketing of energy efficient products and achievement of clean water and sanitation. This finding was derived from the result of the correlation analysis carried out on the two variables. The result showed a positive correlation between marketing of energy efficient products and achievement of clean water and sanitation ( $r = .704^*$ ) and the symbol \* indicates that this correlation is significant at 0.05 level. Consequently, the null hypothesis was rejected and the alternate hypothesis was accepted. This means that there is positive and significant relationship between the marketing of energy efficient products and achievement of clean water and sanitation. This finding is supported by Tuten (2013) and Sarkar (2012) as they reported that the marketing of energy efficient products can be used as a tool for achieving global sustainable development goals including clean water and sanitation.

A positive and significant relationship was found between marketing of renewable energy products and achievement of affordable and clean energy. This finding was deduced from the result of the correlation analysis carried out on the two variables. The result revealed that marketing of renewable energy products has a positive correlation with the achievement of affordable and clean energy ( $r = .869^*$ ) and this correlation is significant at 0.05 level. Based on this result, the null hypothesis was rejected and the alternate hypothesis was accepted. This implies that there is positive and significant relationship between marketing of renewable energy products and achievement of affordable and clean energy. This finding is consistent with the research conducted by Singh and Pandey (2012) which revealed that marketing of

renewable energy products help to achieve the global sustainable development goals.

This study equally found a positive and significant relationship between marketing of renewable energy products and achievement of clean water and sanitation. This finding was derived from the result of the analysis carried out on the two variables. The result showed a positive correlation between marketing of renewable energy products and achievement of clean water and sanitation ( $r = .824^*$ ) and this correlation is significant at 0.05. Consequently, the null hypothesis was rejected and the alternate hypothesis was accepted. This means that there is positive and significant relationship between marketing of renewable energy products and achievement of clean water and sanitation. This finding is supported by Singh and Pandey (2012) and Szuster (2008) as both studies reported that marketing of renewable energy products can help to achieve the global sustainable development goals including clean water and sanitation.

A positive and significant relationship was found between marketing of recycling products and achievement of affordable and clean energy. This finding emerged from the result of the correlation analysis carried out on the two variables. The result revealed a positive correlation between marketing of recycling products and achievement of affordable and clean energy ( $r = .517^*$ ) and this correlation is significant at 0.05. As a result of this, the null hypothesis was rejected and the alternate hypothesis was accepted. This implies that there is positive and significant relationship between marketing of recycling products and achievement of affordable and clean energy. This finding is consistent with the research conducted by Saxena and Khandelwal (2010), Sarkar (2012), Tuten (2013) and Albino (2009) as they all reported that recycling products enhance the achievement of affordable and clean energy.

Finally, it was revealed that positive and significant relationship exists between marketing of recycling products and achievement of clean water and sanitation. This finding was obtained from the result of the analysis carried out on the two variables. The result indicated a positive correlation between marketing of recycling products and achievement of clean water and sanitation ( $r = .838^*$ ) and this correlation is significant at 0.05. Consequently, the null hypothesis was rejected and the alternate hypothesis was accepted. This means that there is positive and significant relationship between the marketing of recycling products and achievement of clean water and sanitation. This finding is supported by Dangelico (2010) and Singh and Pandey (2012) as both studies reported that marketing of recycling products help to achieve the global sustainable development goals including clean water and sanitation.

### **Conclusion and Recommendations**

Considering the increasing environmental pollution and its implications on human health and well-being, it becomes imperative for companies to embrace green product marketing since it has the capacity of achieving the global environmental sustainable goals including affordable and clean energy, and clean water and sanitation. This can be achieved by producing only energy efficient products, renewable energy products and recyclable products since they have the capacity of reducing energy consumption and ensure clean water and sanitation. The empirical results clearly shown that green products (energy efficient products, renewable energy products and recyclable products) have a positive and significant relationship with the



achievement of affordable and clean energy as well as clean water and sanitation. The implication of this is that if only green products are marketed worldwide, it would enhance the achievement of the global environmental sustainable goals by the year 2030.

In line with the findings and conclusion, the following recommendations are made:

1. Manufacturing companies in Nigeria especially those in south-south zone should adopt switch from the conventional marketing to green marketing as it would help to achieve the global environmental sustainable goals.
2. Considering the huge energy consumption in Nigeria and its implications on the environment and human health, manufacturing companies should replace their energy inefficient products with energy efficient products as it would help Nigeria to achieve clean energy and water by the year 2030 which will consequently improve the health condition of the people.
3. Products using coals, fossil fuel and oil as the sources of energy are the major causes of environmental pollution, hence, manufacturing companies should produce their products using energy from renewable sources such as sunlight and wind as this would help to achieve affordable and clean energy as well as clean water and sanitation by the year 2030.
4. It is obvious that excessive waste disposal on lands and seas are the major causes of contaminated water experienced in Nigeria today, hence, it is recommended that manufacturing companies in Nigeria should produce and market recyclable products as this would not only reduce wastes disposal on our lands and seas but would also enhance the achievement of clean water and sanitation by the year 2030.
5. Since consumers are the driving force of sustainable production and play a key role in sustainable development, it is therefore recommended that Nigerian consumers should switch from their unsustainable consumption pattern to sustainable consumption pattern as this would force companies to produce only sustainable (green) products that will lead to the achievement of the global environmental sustainable goals.

## **References**

- Albino,V. (2009). Environmental Strategies and Green Product Development: An Overview on Sustianbility-Driven Companies. Wiley Online Library, Wiley & Sons Publishers.
- Alsmadi, S. (2007). Green Marketing and the Concern over the Environment: Measuring Environmental Consciousness of Jordanian Consumers. *Journal of Promotion Management*, 13(3 – 4): 234-265.
- Awan, U. (2011). Green Marketing: Marketing Strategies for the Swedish Energy Companies. *International Journal of Industrial Marketing*, 1(2): 271-298.
- Belz, F. & Peattie, K.(2009). *Sustainability Marketing: A Global Perspective*. New York: John Wiley & Sons.
- Case, S. (2014). Sustainable Purchasing 101: Tools for Buying Greener Products. Retrieved from: [www.triplepundit.com](http://www.triplepundit.com)

- Cheng, E. (2011). Theories and Interpretations of Environmental Policy. Retrieved from: [www.e-ir.info.com](http://www.e-ir.info.com)
- Dangelico, R.M. (2010). Mainstreaming Green Product Innovation: Why and How Companies Integrate Environmental Sustainability. *Journal of Business Ethics*, 95 (3), 471-486.
- Hasna, A. M. (2007). Dimensions of Sustainability. *Journal of Engineering for Sustainable Development: Energy, Environment, and Health* 2 (1): 47–57.
- Ibok, N. I. & Etuk, S. G. (2014). Socio-Economic and Demographic Determinants of Green Consumption. *International Journal of Managerial Studies and Research*, 2 (Issue 9), 47-56.
- Juwaheer, T., Pudaruth, S. & Noyaux, M. (2012). “Analyzing the Impact of Green Marketing Strategies on Consumer Purchasing Patterns in Mauritius.” *World Journal of Entrepreneurship Management and Sustainable Development*, 8 (1), pp. 36-59.
- Kinoti, W. M. (2011). Green Marketing Intervention Strategies and Sustainable Development: A Conceptual Paper Mary Wanjiru Kinoti University of Nairobi, School of Business Nairobi, Kenya. *International Journal of Business and Social Science*, 2 (23) (Special Issue – December 2011).
- Lindh, H. (2016). Sustainable Packaging of Organic Food: Myth or Reality. PhD. Dissertation, Faculty of Engineering, Lund University, Sweden.
- Ongisa, F. (2013). The Disconnect Between Green Marketing and Green Consumption: A Case Study Of Kisii County, Kenya. *IOSR Journal of Business and Management*, Vol. 13 (Issue 5): 30-33.
- Princen, T. (2003). Principles for Sustainability: From Cooperation and Efficiency to Sufficiency. *Global Environmental Politics*, 3(1): 33-50.
- Polonsky, M. (2001). Reevaluating Green Marketing: A Strategic Approach. *Business Horizons*, 44(5), Sept/Oct, pp. 21-31.
- Sanjay, K. J. & Gurmet, K. (2004). Green Marketing: An Attitudinal and Behavioural Analysis of Indian Consumers. *Global Business Review*, 5 (2): 187-205.
- Sarkar, A. (2012). Green Marketing and Sustainable Development Challenges and Opportunities. *International Journal of Marketing, Financial Services & Management Research*, 1 (Issue 9), September, ISSN 2277 – 3622.
- Saxena, R. & Khandelwal, P. K. (2010). Sustainable Development through Green Marketing: The Industry Perspective. *International Journal of Environmental, Cultural, Economic and Social Sustainability*, 6 (6): 59-79.

- Saxena, R. & Khandelwal, P. K. (2010). Can Green Marketing be used as a tool for Sustainable Growth? A Study Performed on Consumers in India- An Emerging Economy. *International Journal of Environmental, Cultural, Economic and Social Sustainability*, 6 (2): 278-291.
- Schmidheiny, S. (2002). Business Council for Sustainable Development. Changing Course: A Global Perspective on Development and the Environment. Cambridge, Massachusetts: MIT Press.
- Seyfang, G. (2007). Growing Sustainable Consumption Communities: The Case of Local Organic Food Networks. Centre for Social and Economic Research on the Global Environment (CSERGE), University of East Anglia, Norwich, UK.
- Shi, W. (2010). Renewable Energy: Finding Solutions for a Greener Tomorrow. *Reviews in Environmental Science and Biotechnology*, 9(1): 35-37.
- Singh, P.B. & Pandey, K.K. (2012). Green Marketing: Policies and Practices for Sustainable Development. *Journal of Management*, 5(1): 22 - 30.
- Speier, K. (2016). Eco-friendly Brands That will Inspire You to Go Green. Retrieved from: [www.streethost.com](http://www.streethost.com)
- Throsby, D. (2008). Linking Cultural and Ecological Sustainability. *International Journal of Diversity in Organizations, Communities and Nations*, 8(1), 15-20.
- Tuten, T. (2013). Promoting Sustainability by Marketing Green Products to Non-Adopters. *CAIRN Journal*, 2 (30), 136-141.
- Uberoi, N. K. (2007). *Environmental Management*. New Delhi: Excel Books.
- United Nations (2007). *Earth Summit: Agenda 21 - the United Nations Programme of Action From Rio*. New York: United Nations.
- Wang, R. (2006). Renewable Electricity in Sweden: An Analysis of Policy and Regulations, *Energy Policy*, 34, 1209-1220.



# Organizational Performance: The Role of Knowledge Sharing

**EVWIERHURHOMA, Ejiroghene Daniel and OGA, Kelechi Charles**

Department of Management, Faculty of Management Sciences, University of Port Harcourt,  
Nigeria

---

**Abstract:** *This study examined the role knowledge sharing in the organization has on its performance; thus, the purpose of the study is to determine the relationship that exist between knowledge sharing (independent variable) and organizational performance (dependent variable) with measures of profitability and market share using manufacturing firms in Rivers State, Nigeria. A cross-sectional survey design method was adopted for the study using questionnaire as the research instrument which was distributed to 55 manufacturing firms operating in Rivers State. Generated data were analyzed through the use of Pearson product moment correlation coefficient so as to test the relationship between the variables of the study through the use of Statistical Package for Social Sciences (SPSS). The findings revealed that knowledge sharing significantly and positively affect organizational performance vis-à-vis profitability and market share of the manufacturing firms studied. We therefore, recommended among others that manufacturing firms should improve how they share knowledge through supportive and interactive learning environments that is built on trust, openness and collective ownership.*

**Keywords:** *Organizational Performance; Knowledge; Knowledge Sharing; Profitability; Market Share*

---

## INTRODUCTION

Organizational performance as well as how to maintain and enhance attained performance has been the most important goal as well as issue facing all organizations, be it a profit or non-profit, small or large as well as private or public organizations. This has made organizational performance a recurrent concept in management as well as of immense interest to both academic scholars and practicing managers. Although organizational performance is very essential to all organizations, the factors that actually determine its outcome in the organization has brought lot of concern to academic researcher (Mills & Smith, 2011). More so, all over the globe business firms are bedeviled with the problem of how to enhance their performance as a result of changes in technology brought about by globalization which has over the years and currently affecting all aspects of business environment. This particularly means that any business firms who fail to align to this current wave of changes will be left behind.

Most organization in Nigeria, especially the manufacturing sector experience low organizational performance. The poor performance is evident in the fact that most manufacturing firms in Nigeria operate sometimes as low as 36.1% capacity utilization (Bamikole, 2014) probably due to factors such as poor leadership, lack of customer satisfaction,

low product quality as well as lack of knowledge management especially lack of knowledge sharing (Ismael, Yusof & Davoud, 2010). Business organizations are social entities established to attain set goals (such as higher profitability and high market share) (Etzioni, 1964) and in a bid to attaining the set objectives or goals, business firms have to judiciously utilize all resources at their possession since needed organizational resources can be scarce sometimes. In other words, to attain a high performance in the organization, managers must by all means effectively and efficiently utilize their available resources such as raw materials, money, human resources vis-à-vis knowledge, time, and technology. This is because any business firms that do not perform well will eventually die or go into oblivion (Baum & Singh, 1994). Thus, the ability to successfully manage organizational knowledge will be of immense benefit to the organization.

Hence, William, John and Peter (2012) express that the rationale behind some organizations' low performance is due to the fact that they do not know what they are supposed to know which is as a result of not effectively applying key knowledge management processes such as knowledge sharing. The ability to manage knowledge is crucial in today's knowledge economy. The creation and diffusion of knowledge have become increasingly important factors in competitiveness and organizational performance. While knowledge is increasingly being viewed as a commodity or intellectual asset, the inability to effectively share this valuable commodity among organizational members has cost lots of organization some fortunes. Hence, business firms must by all means create new knowledge continuously; encourage its sharing and storage within the organization in order to enhance their performance as well as to gain more advantage competitively. Knowledge sharing plays an essential role in the innovation capability of the organization that leads to enhanced performance of the organization; thus, AlMashari, Zairi and AlAthari (2002) expressed that knowledge sharing helps to build an organization's culture that encourage innovations for better performance. Advantage of knowledge sharing is not only to facilitate the collaboration in the innovation process but also include the identification of gaps in the knowledge base of the organization as well as how to fill it (Zwain, Teong & Othman, 2012). Knowledge sharing therefore helps to safeguard organization's intellectual assets from putrefying as possessed knowledge is shared between members of the organization which help the employees to make better decisions on their day to day operation. This is because the level of organizational performance depends on the quality of the day to day decisions made by the members of the organization which is dependent on the level of knowledge or information possessed by the members of the organization.

On a daily basis organizations are bedeviled with the problem of how to efficiently manage their knowledge resources especially the sharing acquired knowledge. Due to the fact that most employees hide or are reluctant to share possessed knowledge with other employees because of a belief system that once their expertise or knowledge is shared with others they can be easily lay off from the organization as they will no longer be important, as a result they tend to withhold their knowledge. Consequently, the inability to share knowledge has been a major challenge facing organizations including the manufacturing firms in Rivers State; hence, it is essential to examine the role knowledge plays in enhancing the performance of the organization. In other words, the aim of this study is to determine the impact of knowledge

sharing performance vis-à-vis profitability and market share of manufacturing firms in Rivers State, Nigeria. This study would be of immense importance to organizations especially the manufacturing firms in Rivers State, Nigeria as its result would act as a self-assessment tool on the level of implementation of knowledge sharing to improve organizational performance.

### **Research Questions**

The research questions that guided this research work are stated as follows:

- i. What is the relationship between knowledge sharing and profitability of manufacturing firms in Rivers State, Nigeria?
- ii. What is the relationship between knowledge sharing and market share of manufacturing firms in Rivers State, Nigeria?

### **Research Hypotheses**

The research hypotheses to be tested are stated in the null forms which are as follows:

H<sub>01</sub>: There is no significant relationship between knowledge sharing and profitability of manufacturing firms in Rivers State, Nigeria.

H<sub>02</sub>: There is no significant relationship between knowledge sharing and market share of manufacturing firms in Rivers State, Nigeria.

## **LITERATURE REVIEW**

### **Theoretical Framework**

This study adopted knowledge-based theory as its theoretical background and it was propounded by Grant in 1996. Grant (1996) explain that to achieve high organizational performance as well as competitive advantage in an uncertain business environment, organization has to possess and encourage the sharing of acquired knowledge and judiciously utilize it, because a knowledge that is valuable today can be obsolete tomorrow. In other words, sustained organizational performance and competitive advantage is determined by the level of knowledge shared among individual in the organization. More so, because knowledge is possessed by individuals, the ability to distribute tacit knowledge in individual employees to the benefit of the organization is the core reason for knowledge sharing. The main focus of this theory is that business firm can only exist based on their ability to manage knowledge efficiently which is essential to its survival, growth and success (Hakanson, 2010), hence the ability to share any possessed knowledge among employees needed for speedy task performance can lead to enhanced organizational performance.

### **Concept of Knowledge Sharing**

Knowledge sharing as used in this paper is a dimension of knowledge management. Knowledge management has to do with the process by which business firms get value from their intellectual assets (Megan & Jon, 2007); hence it is an organized process by which firms effectively manages their knowledge assets in order to create value to meet strategic requirements which involves knowledge acquisition, assessment, sharing, and storage that is sustained over time. In other words knowledge management has to do with effective and efficient utilization of knowledge to enhance the day to day operations of the organization

through knowledge acquisition, sharing and storage. Knowledge sharing which is the focused of this paper is a process through which personal and organizational knowledge is exchanged. It is the exchange of knowledge between organizational members (Ismail & Chua, 2005). More holistically, it involves the transferring or conveying of knowledge from an employee to another, groups to employees, employees to group, groups to groups as well from one firm to another for better decision making (Bhatti & Qureshi, 2007). In other words, knowledge sharing has to do with the transfer, dissemination and distribution of organized knowledge for better decision making process. The ability of an organization to encourage knowledge sharing is very important to organizational decision making process because any knowledge that is possessed solely by an employee is of little significance to the organization's performance (Bhatti, 2000), hence the need for knowledge sharing among employees or groups in the organization to enhance performance.

Furthermore, knowledge sharing is not just about information sharing but to help the organization to attain its goals and objectives (Nonaka & Takeuchi, 1995). Thus, Wamundila (2008) expressed that employees should be encouraged to enhance their knowledge as well as distribute it to those that essentially needs it for better decision making. To ensure employees are motivated to share their possessed knowledge among other employees, their job security must be assured as well as good reward system given them. Organizations some time share knowledge with other knowledge driven organizations. With the rapid expansion of high technology, organizations are able to share knowledge electronically and hold virtual discussions to explore new opportunities and build new capabilities. Technologies encourage frequent interaction among employees which leads to the sharing and exchange of knowledge. More so, Armbrrecht (2001) expressed that organizational culture and climate is very important to determining if or not organizational members will be willing or not to share or exchange knowledge. Thus, if organizational culture and climate encourages the sharing and exchange of a possessed knowledge, employees would be willing to share and exchange such knowledge with others and verse versa.

### **Concept of Organizational Performance**

The definition of organizational performance just like other concepts in the field of management is very hard due to it multifaceted nature. However, researchers have used objective and subjective measures to explain the concept of organizational performance. While objective measures has to do with the use of accounting analysis to measure organizational performance, subjective measures has to do with the observation of managers on how effective and efficient the performance of an organization is such as the attainment of set goals and objectives (Slater, 1997). More so, it is a set of financial and non-financial sign or pointer to assessing the levels to which organizational goals and objectives have been attained (Kaplan & Norton, 1992). Wiig (1995) defined performance as the process of quantifying the efficiency and effectiveness of organization's action. It is the process of assessing the progress made (actual) towards achieving predetermined set goals. It involves the establishment of organizational goals, monitoring of progress towards the goals, and making necessary modifications to attaining those goals in an effective and efficient way (Richard, Devinney,

George & Johnson, 2009). There are various ways to measure organizational performance according to Pierre, Timothy, George and Gerry (2011) which include profitability, return on investment, return on assets, sales, market share and shareholder return; however, the scope of this paper is limited to profitability and market share.

Profitability has to do with the ability of an organization to maximize revenues and minimize cost; which means how well the business is doing (Lipsey, 2003). Profitability is one of the most sort objectives of all business organization; this is because it determines the failure or the success of any organization. For an organization to achieve high profitability it must be able to operate under a cost advantage policy, hence, the organization has to analyse where operation costs are incurred most and manage accordingly. Having this knowledge on how to reduce the cost associated with the everyday operations of the organization will help to enhance the performance of the organization. Market share has to do with the proportion of a given market an organization have control of which serves as a major sign of competitive advantage enjoyed by an organization (Slack, Johnston & Chambers, 2004). Market share helps manager to evaluate total market growth or decline as well as trends in customers' purchase behaviour. A decline in an organization's market share can be a sign of serious long-term problems that might affects the general performance of the organization which needs urgent strategic modification from managers.

## **METHODOLOGY**

A survey design in the form of cross-sectional design was adopted for the study using questionnaire as the research instrument which consists of three respond choices with 5 point Likert scales ranging from 1 to 5 indicating strongly disagree, disagree, indifference, agree and strongly disagree respectively. The independent variable is knowledge sharing and it was used as a uni-dimensional variable while the dependent variable is organizational performance measured with profitability and market share. The population of this study is made up of 55 manufacturing firms listed with the Manufacturers' Association of Nigeria (MAN), Rivers State. Out of the 55 questionnaire distributed 46 were properly filled and returned which served as the basis for the data analysis. The reliability of the research instrument indicated a Cronbach Alpha value of 0.972 for knowledge sharing, 0.986 for profitability and 0.962 for market share while face and content validity was used for the validity of the research instrument. Collected data was analyzed through the use of Pearson Product Moment correlation coefficient and t-statistics was used to test the relationship between the variables of the study through the use of Statistical Package for Social Sciences (SPSS) Windows version 22 with a significance level of 0.05.



## DATA ANALYSIS AND RESULT

### Relationship between Knowledge Sharing and Profitability

**Table 1:** Correlations analysis showing the relationship between knowledge sharing and profitability

		<b>Correlations</b>	
		Knowledge Sharing	Profitability
Knowledge Sharing	Pearson Correlation	1	.974**
	Sig. (2-tailed)		.000
	N	46	46
Profitability	Pearson Correlation	.974**	1
	Sig. (2-tailed)	.000	
	N	46	46

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

Table 1 above shows a Pearson's Product Moment Correlation coefficient (r) of 0.974. This means that a very strong positive relationship exists between knowledge sharing and profitability; thus further improvement in knowledge sharing will enhanced profitability of Manufacturing firms in Rivers State. Below shows the t-values of the relationship between the variables:

**Table 2:** Extent of effects of knowledge sharing on profitability

Variables	Coef.	t-cal	sig. t	t-tab (0.05, 42)	R	R <sup>2</sup>	F-cal	F-tab (0.05, 3, 45)	sig f
Constant	1.162	8.535	.000						
Knowledge Sharing	1.077	5.174	.000	2.02	0.974	0.949	539.339	3.23	0.000

Dependent Variable; Profitability

**Source:** SPSS Result, version 22.0

The result in Table 2 above shows that the correlation coefficient is 0.974. It indicates that a significant and strong relationship exist between knowledge sharing and profitability. The Coefficient of Determination ( $R^2$ ) = 0.949 implies that 94.9% variation in profitability is explained by variations in knowledge sharing. This indicates that this model has a good fit. The other 5.1% is elucidated by other variables not captured in this model. The F-calculated of 539.339 had a corresponding significant F-tab of 3.23; we therefore conclude that the model is useful. Conventionally  $F\text{-Cal} = 539.339 > F\text{-tab}_{(0.05, 3, 45)} = 3.23$  hence the decision above is

upheld. Also, Table 2 shows that knowledge sharing had a calculated t-value of 3.003 and a corresponding Probability Value (PV) of 0.000. From the decision rule, since the  $t_{\text{calculated}} = 5.174 > t_{\text{tabulated}} (0.05, 5, 42) = 2.02$ ; then the null hypothesis is rejected and therefore there is a significant relationship between knowledge sharing and profitability of manufacturing firms in Rivers State, Nigeria.

### **Relationship between Knowledge Sharing and Market Share**

**Table 3:** Correlations Analysis showing the relationship between knowledge sharing and market share

		<b>Correlations</b>	
		Knowledge Sharing	Market Share
Knowledge Sharing	Pearson Correlation	1	.928**
	Sig. (2-tailed)		.000
	N	46	46
Market Share	Pearson Correlation	.928**	1
	Sig. (2-tailed)	.000	
	N	46	46

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

**Source:** SPSS Result, version 22.0

Table 3 above shows a Pearson's Product Moment Correlation coefficient (r) of 0.928. This means that a very strong positive relationship exists between knowledge sharing and market share; hence, further improvement in knowledge sharing will enhance market share of manufacturing firms in Rivers State. Below shows the t-values of the relationship between the variables:

**Table 4:** Extent of effects of knowledge sharing on market share

Variables	Coef.	t-cal	sig. t	t-tab (0.05, 42)	R	R <sup>2</sup>	F-cal	F-tab (0.05, 3, 45)	sig f
Constant	3.417	7.987	.000						
Knowledge Sharing	.312	3.738	.000	2.02	0.928	0.861	539.339	3.23	0.000

Dependent Variable; Profitability

**Source:** SPSS Result, version 22.0

The result in Table 3 above shows that the correlation coefficient is 0.928. It indicates that a significant and strong relationship exist between knowledge sharing and market share. The

Coefficient of Determination ( $R^2$ ) = 0.861 implies that 86.1% variation in market share is explained by variations in knowledge sharing. This indicates that this model has a good fit. The other 13.9% is elucidated by other variables not captured in this model. The F-calculated of 539.339 had a corresponding significant F-tab of 3.23; we therefore conclude that the model is useful. Conventionally  $F\text{-Cal} = 539.339 > F\text{-tab}_{(0.05, 3, 45)} = 3.23$  hence the decision above is upheld. Also, Table 3 shows that knowledge sharing had a calculated t-value of 3.738 and a corresponding Probability Value (PV) of 0.000. From the decision rule, since the t-calculated = 3.738 > t-tabulated  $(0.05, 5, 42) = 2.02$ ; then the null hypothesis is rejected and therefore there is a significant relationship between knowledge sharing and market share of manufacturing firms in Rivers State, Nigeria.

### **DISCUSSION OF FINDINGS**

Data analysis indicated strong influence of knowledge sharing on profitability and market share respectively. In line with the above findings, Roland (2006) revealed that profitability depends on a firm's ability to integrate knowledge into the value creation process and into core competency based strategies through sharing. In other words, to attain and sustain a high level of performance, an organization must develop efficient mechanisms for distributing and exchanging of knowledge between employees. Also, Kiessling, Richey, Meng and Dabic (2009) expressed that knowledge management positively affects organizational outcomes, such as the firm's innovation, product improvement, employee improvement as well as the general performance of the organization. In the same vein, Inkpen (1998) accentuated that not only does employees play essential role in the creation and utilization of knowledge but unless others have access to it such knowledge would have limited impact on organizational performance. Thus, the process that is involved in knowledge management is not only limited to knowledge acquisition but also the process where employee possessed knowledge is regularly amplified and shared among others through sustained processes and efforts for better performance.

To further buttress our findings, Bhojaraju (2005) expressed that knowledge sharing throughout the organization improves organizational processes and removes redundant processes through the introduction of more efficient and effective ones which enables the employees to have access to the right information about their customers, serve them better and increase their market share. In the same vein, Davenport and Prusak (1998) expressed that an organizational performance can be improved by locating and sharing useful knowledge. Also, Hair (1998) noted that knowledge management processes which are knowledge acquisition, knowledge sharing and knowledge storage enhances the performance of the organization such as the market share and its profitability. The market share of an organization highly depends on the ability of managers to transform all the knowledge resources held by individuals and teams and create values as well as share the same within the organization for enhanced performance (profitability and market share). Hence, employees must be motivated to share acquired knowledge between other colleagues for better performance. This is because in order to achieve success, organizations should possess and share knowledge (Stefanescus &

Stefanescus, 2008). The ability to share any possessed knowledge has therefore become necessary in the organization so as to overcome knowledge loss and improve performance.

## **CONCLUSION**

Our analysis revealed that a significant and positive relationship exist between knowledge sharing and organizational performance vis-à-vis profitability and market share of manufacturing firms in Rivers State; thus we conclude that knowledge sharing is an essential tool that enhances organizational performance. To attain higher performance in the organization, managers must ensure possessed knowledge is shared to those that will need it for better decision making. Organizations make decisions on a daily basis as events unfold from the business environment which either bring opportunities or threats; however to take advantage of every opportunities that will enhance performance, organizations must have the required information needed to make better decisions through knowledge sharing. Hence it is very important to share any possessed knowledge for better performance. This is because knowledge is recognized as a strategic resource for enhancing organizational performance, thus must be managed as such.

## **RECOMMENDATIONS**

Below are the recommendations from this study

1. Manufacturing firms should improve how they share knowledge through supportive and interactive learning environments that is built on trust, openness and collective ownership
2. The manufacturing firms should also implement the following knowledge sharing practices such as succession planning, storytelling, mentorship, coaching and orientation. This is to ensure appropriate sharing of knowledge in the firms in order to enhance their performance.
3. Encourage knowledge sharing by locating people who normally work together close to each other where people can connect with others through briefings and discussions.
4. Financial and non-financial reward should be given to employees on their abilities to share knowledge so as to encourage knowledge sharing in the organization.

## **REFERENCE**

- AlMashari, M., Zairi, M. & AlAthari, A. (2002). An empirical study of the impact of knowledge management. *Journal of Management*, 3(8), 86-99.
- Armbrecht, F. (2001). Knowledge management in research and development. *Research Technology Management*, 44(4), 21-37.
- Bamikole, O. (2014). The impact of capacity utilization on manufacturing productivity growth in Nigeria using co-integration analysis. *SSRN Electronic Journal*, 1(3), 15-26.
- Baum, J.A.C. & Singh, J.V. (1994). Organizational niches and the dynamics of organizational benefits. *Journal of Marketing*, 3(6), 18-31
- Bhatti, K. K. (2000). Organizing knowledge in the knowledge development cycle. *Journal of Knowledge Management*, 4(1), 15-26.

- Bhatti, K.K. & Qureshi, T.M. (2007). Impact of employee participation on job satisfaction, employee commitment and employee productivity. *International Review of Business Research Papers*, 3(2), 54-68
- Bhojaraju, G. (2005). Knowledge management: why do we need it for corporate? *Malaysian Journal of Library and Information Science*, 10(2), 37-50.
- Davenport, T. & Prusak, L. (1998). *Working knowledge*. Boston: Harvard Business School Press.
- Etzioni, A. (1964). *Modern organizations*. New Jersey: Prentice Hall.
- Grant, R. (1996). Towards a knowledge-based theory of the firm. *Strategic Management Journal*, 17(Winter Special Issue), 109-122.
- Hair, J. F. (1998). *Multivariate data analysis*. New Jersey: Prentice Hall.
- Hankanson, L. (2010). The firm as an epistemic community: the knowledge-based view revisited. *Industrial and Corporate Change*, 19(6), 18-28.
- Inkpen, C.A. (1998). Learning and knowledge acquisition through international strategic alliances. *Academy of Management Executive*, 12(4), 45-57.
- Ismael, Y., Yusuf, A. & Davond, M. (2010). A review paper on organizational culture and performance. Retrieved from [www.ijbssnet.Com/Journals/vol.-1-no.3December-2010/4.Pdf](http://www.ijbssnet.Com/Journals/vol.-1-no.3December-2010/4.Pdf)
- Ismail, M. & Chua, L. (2005). Implication of knowledge management in higher learning institutions. *Paper presented in International conference on Knowledge Management, PWTC: Kuala Lumpur*.
- Kaplan, R. S. & Norton, D.P. (1992). The balanced scorecard measures that drive performance. *Harvard Business Review*, 8(3), 71-79.
- Kiessling, T. S., Richey, R. G., Meng, J., & Dabic, M. (2009). Exploring knowledge management to organizational performance outcomes in a transitional economy. *Journal of World Business*, 44(4), 421-433
- Lipsey, J., Kenneth I., Carlaw, K. & Richard G (2003). Productivity, technology and economic growth: what is the relationship? *Journal of Economics Review*, 17(3), 457-495.
- Megan, M. & Jon, S. (2007). Knowledge management. Retrieved from <http://www.cio.com/article/2439279/enterprise-software/knowledge-management-definition-and-solutions>.
- Mills A. & Smith T., (2011). Knowledge management and organizational performance: a decomposed view. *Journal of Knowledge Management*, 15(1), 156-171.
- Nonaka, I. & Takeuchi, H. (1995). The knowledge-creating company: how Japanese companies create theon job satisfaction, employee commitment and employee productivity. *Journal of Knowledge Management*, 7(3), 6-26.
- Pierre, J. Timothy, D. George, S. & Gerry, J. (2011 ). Measuring organizational performance as a dependent variable: towards methodological best practices. *Journal of Management*, 15(3), 59-80.
- Richard, P., Davinney, S. & Johnson, G. (2009). Measuring organizational performance: towards methodological best practices. *Journal of Management*, 35(3), 718-804.
- Roland, N. (2006). Knowledge management in the business-driven action learning process. *Journal of Management Development*, 25(9), 896-907
- Slack, N., Chambers, S. & Johnston, R. (2004). *Operations management (4th ed)*. London: Prentice Hall.
- Slater, D. (1997). *Consumer culture and modernity*. Boston: Harvard Business School Press.
- Stefanescus, L. & Stefanescus, A. (2008). The need of knowledge management strategy for the successful implementation of reengineering projects. *Journal of Knowledge Management*, 6(6), 51-60.

- Wamundila, S. (2008). *Developing Guidelines for a Knowledge Management Policy to Enhance Knowledge Retention at University of Zambia*. Research Thesis Submitted to University of South Africa.
- Wiig, K.M. (1995). *Knowledge management methods: practical approaches to managing knowledge*. Arlington, TX:Schema Press.
- William, N., John, V. & Peter, D. (2012). How organizational know what they know: a survey of knowledge identification methods among Australian organization. *International Journal of Trade, Economics and Finance*, 8(4), 19-31.
- Zwain, A., Teong, L. & Othman, S. (2012). Knowledge management processes and academic performance in Iraq HE/s: an empirical investigation. *International Journal of Academic Research in Business and Social Sciences*, 2(6), 74-91.



## Marketing Decision-making among Fast Moving Consumer Goods (FMCG) Manufacturing Firms in Nigeria: The Place of Quantitative Analysis

Harry, Amieibi-ibama Harcourt<sup>1</sup>, Gbegeh, Boobura Deenor<sup>2</sup> and Dick, Diepriye I. J.<sup>3</sup>

<sup>1,3</sup>Department of Marketing, Rivers State University, Port Harcourt

<sup>2</sup>Department of Marketing, Ken Sarowiwa Polytechnic, Rivers State

---

**Abstract:** Modern day organizations are managed through carefully crafted policies backed by optimal objective decisions. In order to avoid suboptimal operations in marketing activities, decision science models are employed to complement anecdotal and intuitive decision-making. This paper explored the application of quantitative analysis in marketing decisions among fast moving consumer goods (FMCG) manufacturing firms in Nigeria. Literature review revealed that quantitative analysis tools like Markov analysis, games theory, inventory model, time series and forecasting technique, transportation models, and optimization model enhances marketing decisions in the areas of managing inventory, sales forecasting, management of market share and competition analysis, managing waiting lines etc. The quantitative techniques enumerated above can be applied to numerous marketing activities for optimal marketing decision-making. FMCG firms that seek to make objective decisions to drive marketing operations should thus resort to quantitative approaches to decision-making; and in order to effectively match the demand of planning units in FMCG firms, operations researchers in Nigerian should create marketing models to support marketing decision-making of FMCG firms.

**Keywords:** Quantitative analysis, marketing decisions, fast moving consumer goods

---

### Introduction

Managing an organization involves formulating policies and making decisions for the good governance of the work place. A formal organization is made up of strategic business units; production, human resources, finance, marketing, research and development etc (Stoner, Freeman & Gilbert, 2013). Hence, management must make policies and decisions in each of these functional units of the firm for the overall performance and growth of the enterprise. Decisions can be made through qualitative and quantitative resources for the optimization of the firm activities. Marketing which is one of the most prominent SBU's of the organization makes policies and decisions from company/product conceptions, production, selling and distribution of merchandize and services (Kotler & Keller, 2012; Kotler & Armstrong, 2012).

The practice of marketing in the work place involves both qualitative and quantitative decision making. The marketing manager employs both qualitative and quantitative analytical

tools for optimal decision making in the areas of product management, marketing communications, cost and pricing decisions, and distribution management. Others includes, strategic, forecasting and forward planning of marketing activities, customer and competition management, marketing research etc. (Kotler, 2000; Bagshaw, 2011). It is imperative to note that guess or intuitive decisions are sometimes misleading and costly to management, application of quantitative analysis to marketing decisions helps firms to make objective and optimal decisions for effectiveness marketing system. A marketing executive that disregards the use of quantitative basic analytical tools may lead the department and the firm to suboptimal operations and consequent risk of extinction, considering the complexity of the operating business environment (Halikias, 2009; Wireenga, 2008). Hence, because of the dynamic nature of the business environment the use of quantitative analysis or applied philosophy science for marketing decisions is laudable.

Quantitative analysis, management science or operational research is computational study of the organization in action (Agrawal, Subramanian & Kapoor, 2010; Halikias, 2009). Thus, quantitative techniques has made major contributions to the efficiency of the organization by improving both functional and top level decision making in the firm. Historically, management science or quantitative analysis started in the late 1930's and has grown in an upward trajectory in the last three decades (Agrawal *et al.*, 2010). Hence, in order to research into the war efforts during the Second World War. Operational research scientist developed and used these techniques to enhance effectiveness and efficiency in the war. These techniques are linear programming, games theory, inventory model, transportation model, shortest route models, optimizing techniques etc (Bagshaw, 2011; Wierenga, 2008). These techniques find its roots to business organizations immediately after the Second World War which began with the industrial revolution. Today operational research techniques are applied virtually in every field of human endeavours; public governance, private institutions, and non-profit organizations (Halikias, 2009).

The fast moving consumer goods manufacturing sector in Nigeria provides consumer care products that are needed for daily consumption. This sector contributes significantly to the growth of the Nigerian economy (Ejiba & Omolade, 2016). The industry is made up of companies that supplies cost effective products that are in high demand in the markets. These products in the FMCG sector include food and beverages, personal health and hygiene products, household washing and cleaning utensils (KPMG, 2016). Hence, companies that play in this industry in the Nigerian markets are, Unilever, PZ, Nestle, Cadbury, Dangote Sugar, Dangote Flour, Flourmills, UACN, Nigerian Breweries Plc and Guinness Plc etc (Lagos Business School, 2016). Thus, some of these institutions are also seen playing in the global markets (KPMG, 2016).

It is important to note that since FMCG is often cited as a low margin - high volume game, managing input cost remain very important as small margin gain still have a significant impact on the bottom lines due to large volumes. Managing production, scheduling, inventory carrying, products distribution etc. requires leveraging quantitative techniques to manage these marketing and related business activities in the FMCG industry (Halikiars, 2009; Wierenga, 2008). Hence, the business model of the FMCG companies worldwide indicates that



applied philosophy of science or quantitative management of the organization cannot be completely isolated in the life of the industry.

### **The Concept of Quantitative Analysis**

Quantitative business methods, quantitative analysis applied philosophy of science, management science and operational research can be used interchangeably. It is the mathematical or computational study of an organization in action (Agrawal *et al.*, 2010; Halikias, 2009). Quantitative analysis came into being during the Second World War. In order to deepen research into the war efforts, the Americans and the Britain etc. assembled team of operational researchers; mathematicians, physicist, economist, engineers, scientist, statisticians etc. This team of researchers brought their combined knowledge and capabilities and developed models used in driving the war (Margo, 2007; Eliashberg, 1993).

Thus, the focus of the operations research team during the World War II was on production, operations and distribution logistics (Eliashberg, 1993). Some of the management science techniques used are linear programming, network analysis, inventory models, games theory, transportation model, shortest route models, optimizing techniques etc. (Bagshaw, 2011; Stecke, 2005). However, immediately after the Second World started the industrial revolution, the research scientist where disbanded at the end of the war, but the same problem that confronted the military also faced the various industries, but in different contexts. The operations researchers came into the industries and used these techniques for business decision (Stecke, 2005; Beresnev & Suslov, 2010).

Operations research or management science techniques are applied into making marketing decisions. Literature on operational research in marketing commenced significantly in the 1960s (Eliashberg, 1993). Hence, in practical terms techniques such as markov analysis, games theory, optimizing models, time series additive and multiplicative models, regression models etc. are used for marketing modeling (Bagshaw, 2011; Beresnev & Suslov, 2010; Halikas, 2009). Thus, a marketing manager at the end of a financial year should know the number of customers that started patronizing his business and the number that has defected to the competition. The marketing SBU's studies this transition pattern with the aid of a model called Markov analysis (Bagshaw, 2011). The marketing department uses this model to know how best to manage the company market share through superior customer service to mitigate defection but rather built and grow market share. With the Markovian Chain, Marketing will be able to know the firm market share in the medium to long term; a forward planning and forecasting tool for marketing decisions, (Bagshaw, 2011). Hence, customer patronage data collection is imperative.

The marketing department in the organization most times studies factors that affect the behaviour of sales. There are several factors which are endogenous and exogenous that affects sales of company product or services. Thus, sale is a function of several variables; such as the price, quality, advertising, consumer taste and preferences, income of the consumer, general economic conditions etc. The marketing department can employ regression model to study the pattern or trend and also to predict the likely behaviour of sales in the future (Althuisen, Wierenga & Chen, 2016). Thus, this activity can be managed by the department or planning

unit of the firm. It can also be outsourced to consultants upon provision of necessarily data. What is happening in the environment can be reduced to functional relationships through marketing modeling as:

$$Y = f(X_1; X_2; X_3; X_4; \dots; X_n).$$

Where

Y	=	Sales Revenue
F	=	Functional relationship between variables
X <sub>1</sub>	=	Price of the product
X <sub>2</sub>	=	Advertising
X <sub>3</sub>	=	Price of substitute products
X <sub>4</sub>	=	Quality of competitor products
X <sub>n</sub>	=	State of the Nigerian economy

Thus, sale (Y) is the dependent variable in the marketing model above. This model explains that sales revenue is a function of price of the product (X<sub>1</sub>), Advertising (X<sub>2</sub>), price of substitute product from the competition (X<sub>3</sub>), the quality of competitors' products (X<sub>4</sub>) and the general condition of the Nigerian economy (X<sub>n</sub>). The player in the FMCG sector in Nigeria should be aware that each of these independent variables affects or influences an outcome in the sales of their products (Bagshaw, 2011). Hence, this will help the marketing managers on how best to manipulate the endogenous factors X<sub>1</sub> and X<sub>2</sub> which are within the control of the firm in order to adapt to the exogenous factors of X<sub>3</sub>, X<sub>4</sub> and X<sub>n</sub> which are beyond the control of the organization (Kotler & Armstrong, 2012; Beresnev & Suslov, 2010). Quantitative analysis helps marketing managers to predict marketing activities and to effectively manage the marketing business.

A marketing department taking advantage of quantitative analysis can adequately manage stock in its warehouse and logistics management through the employment of inventory model, transportation and shortest routes models respectively (Stecke, 2005; Margo, 2007; Bagshaw, 2011). Hence, virtually every activity in marketing can be explained with the help of management science or operational research. Marketing modeling which involves simulating marketing activities by reducing the variables in the environment to functional relationships is made possible with the employment of decision science or applied philosophy of science.

### **Concept of Marketing Decisions**

Decision making is the process of making choice from several alternative courses of actions. Business people are confronted with several alternatives in the decision environment, objective and optimal decision making is expected from the chief executive or top echelon managers. The onus of making decisions in the marketing department lies with the marketing manager in tandem with the corporate vision of the organization (Kotler & Keller, 2012; Kotler & Armstrong, 2012; Stoner *et al.*, 2013). Hence, marketing is divided into functional areas with

specific duties and responsibilities. Each of these sub-marketing divisions requires optimal decisions for the overall effectiveness of the marketing system (Kotler, 2000).

Thus, marketing is expected to effectively manage these SBU'S; marketing research, product management, marketing communications, distribution management, pricing and cost management, sales management and strategic marketing management etc. and deliver superior products and services to the firm stakeholders within the marketing value chain (Sharma, Drishan & Grewal, 2001). Hence, marketing department should carryout effective decisions in the marketing mix variables, making optimal choices in the product design, quality and specifications, pricing, promotion and place management.

The fast moving consumer goods (FMCG) companies are expected to make sound decisions in the evolving domains of marketing by leveraging the right resource mix configuration. In other words, the firm should make decisions about marketing resources that will be used to execute the functions of marketing. Resources such as human capital, machines, methods and materials for the conception, production, selling and distribution of goods and services should be decided by the marketing manager. However, inputs from other functional units of the organization are needed for a more robust decisions on marketing resources should be utilized (Althuizen *et al.*, 2016). Thus, decisions about marketing resources are laudable as these resources usually help the firm performance and boost creativity at work.

The marketing manager of a fast moving consumer goods (FMCG) company has to contend with several factors which are external to the firm, and of which the management should put into consideration in decision making. These factors are the market (customers), competition suppliers and distributors, the external macro-environmental forces; government regulations and politics, economy, socio-cultural, technology etc. (Kotler, 2000; Kotler & Armstrong, 2013). Hence, it is imperative for marketing management to make the foregoing strategic decisions for the growth and survival of the enterprise.

The entire marketing system in the work place involves both qualitative and quantitative decisions. Marketing managers can only be effective in decision making by complementing the two domains of decisions. However, decision making is a continuous one and seen as the pervasive element of a marketing manager's job, whether dealing with a product or service, objective decision making is laudable in the face of a dynamic business environment (Bagshaw, 2011; Althuizen *et al.*, 2016). Hence, objective marketing decisions can be achieved with the employment of quantitative analysis which should support the intuitive or guess domain of the manager, i.e., marketing decisions can only be made through oral anecdote or intuitive reasoning. The computational or marketing metrics tools should always be used to aid marketing and business decisions.

### **Quantitative Analysis and Marketing Decisions**

The application of mathematical or decision science tool for marketing decisions has been studied by academics and scholars of industrial mathematics, engineering, economics, statistics, management science etc. From theoretical and practical perspectives, it was revealed that quantitative analysis or applied philosophy of science aids business decisions and organizational effectiveness since World War II till date (Wierenga, 2008). Hence, marketing

decisions are supported with analytical mathematical models. Historically, before the advent of operations research and its incursion to the industry, marketing research was only based on collecting facts from respondents. These facts were never subjected to quantitative or statistical analysis. The introduction of data analysis with statistical tools helps drive better and objective decision making in marketing (Wierenga, 2008; Halikias, 2009). Marketing models are very useful in modern day organization in the various sub-units of marketing; advertising, media planning, pricing, sales force allocation, forecasting and inventory management and control. "They marked the beginning of an explicit analytical approach to marketing decision making".

Operations research has an important role in marketing decisions as it involves the combine knowledge of multidisciplinary subjects such as economics, mathematics, statistics, industrial engineering and management (Agrawal *et al.*, 2010). This combined knowledge is used to evaluate alternative courses of actions in marketing for optimal decisions. It is important to note that in decision making, usually two or more heads are better than one. Using the combined capabilities of the foregoing subjects makes problems solving easier both in the marketing department and the organization. Management science helps marketing to build marketing mix decision models. "Complex prescriptive marketing mix models are now common-place in the marketing literature" due to the incursion of decision science in marketing (Barnard & Sharp, 2000). Hence, these models help guide marketing managers in making decisions. However, marketing is increasingly becoming more scientific due to the use of complex quantitative and statistical modeling of marketing mix outcomes.

Furthermore, the application of quantitative analysis helps marketing decision makers to study the causal connections and correlation of variables in the field of marketing. Tools such as time series and forecasting models; additive and multiplicative models can be used to study the trend, seasonal variations, cyclical variation and residual or irregular. Historical data can be used to predict sales or revenue with the help of the regression model (Bagshaw, 2011). Thus, decision models claimed insight into marketing effectiveness mostly seems to assume that a regression equation implies causation, i.e.  $Y_0$  (Sales) =  $a + b_1 X_1 + b_2 X_2 + b_n X_n$ . This helps the marketing manager to investigate and make decisions on the influence of  $X_1$  (Advertising),  $X_2$  (price) and  $X_n$  (Price of competition product) on the sales revenue of the product (Barnard & Sharp, 2000; Bagshaw, 2011). Hence, with this model, the marketing manager can make decision on the strength of relationships between the independent variables  $X_1$ ,  $X_2$  and  $X_n$  and the dependent variables ( $Y_0$ ). The extent to which the predictor variables impact the criterion variable can also be explained with the aid of the model.

Quantitative analysis is one of the most potent primary functions involving marketing decision making in both public and private organizations. The marketing department has wide ranging functions such as managing markets and market share, competition management, sales and inventory management, cost and profit management, transportation and supply chain, etc. Management science tools such as Markov analysis, games theory, time series and forecasting models, inventory models, optimization techniques, transportation model, shortest route model etc. are used to aid marketing decisions (Lee, Oh & Pines, 2015; Singla, 2016). Thus, the work of operations research is the means of taking the decisions and the provision of

data to marketing managers to take the most valid decisions (Singla, 2016).

New product development and management is made effective with the help of operations research. In originating a new product, the concepts will usually be subjected to screening and business analysis this involves quantitative analytical tools such as inventory model, linear programming, breakeven model etc. (Urban, 2007). Hence, mathematical models and quantitative techniques have found an increasing number of applications as tools for marketing management decision making. Quantitative analysis are most useful to marketing managers in decision areas that are highly complex and dynamic where reliance on intuitive or anecdotal methods of decision making is practical impossible. New product introduction is one of the complex challenges confronting marketing management. Managers often are in states of dilemma; either to introduce the concept, discontinue the concept, or do further analysis. Management science helps the product manager to better understand breakeven analysis and duration of sales, costs judgments, investment and capital budgeting etc. surrounding the development of the new products (Mihaita, 2006; Urban, 20078).

Empirical study investigating the nexus between quantitative analysis and business decisions revealed that quantitative analysis has significant influence on the domains of business such as production, marketing, finance, research and development (Onukwulo, Onwuka & Nagbala, 2014). Hence, management science significantly influences decisions in marketing activities. Successful marketing decisions rely on management science techniques to evaluate alternative courses of actions and opt for the best that will yield the greatest opportunities for success. Therefore, decision making in the field of marketing has relationship with decision science whether dealing with a product or service, promotion, costing and price, place and channel management (Kotler & Armstrong, 2012; Beresnev & Suslov, 2010).

According to Kotler & Armstrong (2008), this aspect of using mathematical tools or models to make marketing decisions is referred to as marketing by numbers. Hence, managerial decision making in marketing involves the assemblage in intuitive knowledge and operational research results (Althuizeen *et al.*, 2016). Marketing management which is an endeavour or proper utilization of resources to achieve stated market and competitive objectives can only be effective and efficient with the help of management science tools or applied philosophy of science (Halikias, 2009).

### **Managerial Value of Quantitative Analysis**

Quantitative analysis has helped in the area of marketing model building which has further enhanced the practice of marketing positively. It has also created better understanding of the development and nature of marketing phenomena on the part of practitioners and academics (Eliashberg, 1993; Steckle, 2005). Hence, marketing models and decision science are used to solve real life industry problems. The value of inventory model, Linear programming, decision analysis, games theory, time series additive and multiplicative models, queuing models etc are very laudable. Some of these tools are used to keep the right levels of stock in the organization; others are used for optimum production decisions, competition management among rival firms. Customers' traffic in banks and restaurants can be effectively managed with queuing model and the historical data of sales in any organization can be studied to carryout

forecasting and planning with the help of time series and forecasting models (Bagshaw, 2011; Beresnev & Suslov, 2010; Althuizen *et al.*, 2016).

Marketing decisions can only be made through intuition; this is always complemented with quantitative analysis since a great number of the activities in marketing deals with numbers (Kotler & Armstrong, 2008; Kotler & Armstrong, 2012). Hence, these techniques help build marketing models which are used today in civil aviation, government agencies, private production and services organizations, non-profit organizations etc. The managerial value of applied philosophy of science in enhancing work place marketing activities cannot be overemphasized. Marketing scholars and practitioners who disregard the application of operations research tools in marketing may drive their institutions to extinction.

### **Conclusion**

Marketing policies and its attendant decisions at work can be complementarily made through qualitative and quantitative means. Managers in modern day organizations could not afford to make decisions only through hunches or intuitive reasoning. A part of the organization involves numbers or quantitative and requires computational analysis of marketing scenarios. It is therefore imperative for marketing leaders both in the industry and academics to promote the usage of both qualitative and quantitative methods in a complementary manner that will yield optimal decision making. It is important that marketing departments in the industry should have planning units where techniques relevant to marketing will be used to develop the competences of staff in that unit for effective operational research work. Since those who carry out the decision science operations are distinct from management, there should be consistent interface between marketing managers and staff of planning units. This will ensure cross fertilization of ideas and objectives marketing decision making.

Most importantly, marketing departments in the work place should wholeheartedly embrace quantitative analysis this is because from proper x-ray, the vast majority of the techniques in operations research or management science are for marketing aids. On the labour marketing demand and supply analysis, there is shortage of operational research analyst, making demand for analyst by companies is higher than supply. To this end, it is imperative for marketing departments in Nigerian tertiary institutions to create sub specializations called marketing models and operations. This will help train younger generation of marketing scientists, bearing in mind that today complex organization and environment requires multi-disciplinary approach to decision making.

### **REFERENCES**

- Agrawal, S., Subramanian, K. R., & Kapoor, S. (2010). Operations research: contemporary role in managerial decision making. *International Journal of Research*, 3(2), 200-208.
- Althuizen, N., Wierenga, B., & Chen, B. (2016). Managerial decision-making in marketing: Matching the demand and supply side of creativity. *Journal of Marketing Behaviour*, 2 (6), 129-176.
- Bagshaw, K. B. (2011). *Quantitative analysis for business decisions*. Nybraide Enterprises Nigeria.

- Barnard, A. E., & Sharp, B. (2000). Problems with marketing's 'decision' models. Visionary marketing for the 21<sup>st</sup> century: Facing the challenge. *University of South Australia*.
- Beresnev, V. L., & Suslov, V. I. (2010). A mathematical model of market competition. *Journal of Applied and Industrial Mathematics*, 4(2), 147-157.
- Ejiba, I. V., & Omolade, O. K. (2016). Sectoral contribution to Nigeria's gross domestic product (GDP) growth rate: A study of multi collinearity in aggregated time series data. *Journal of Scientific Research and Reports*, 11(1), 1013.
- Eliashberg, J. (1993). Mathematical marketing models: some historical perspectives and future projections. *Journal of Science*, 5(4), 3-22.
- Halikias, J. G. (2009). The use of management science techniques by business organizations with special emphasis on the use in different functional areas: survey in Greek companies. *European Research Studies*, 12(2), 1-15.
- Kotler, P. & Armstrong, G. (2008). *Principles of marketing*. 12<sup>th</sup> Edition. Pearson Prentice Hall.
- Kotler, P. & Armstrong, G. (2012). *Principles of marketing*. 14<sup>th</sup> Edition. Pearson Education.
- Kotler, P. & Armstrong, G. (2013). *Principles of marketing*. 14<sup>th</sup> Edition. Pearson Education Limited.
- Kotler, P. & Keller, K.L. (2012). *Marketing management*. 14<sup>th</sup> Edition. Prentice Hall.
- Kotler, P. (2000). *Marketing management*. Millennium Edition. Prentice Hall.
- KPMG, (2016). *The FMCG/prepared food sector in Africa: An overview and trade analysis*. Retrieved from <http://www.dedc.gov.ac>.
- Lagos Business School (2016). *Industry report 2016 MBA 13*. Retrieved from <http://www.lbs.org>.
- Lee, E., Oh, J. & Pines, E. (2015). Practical managerial decision making tools. *Journal of Applied Business and Economics*, 10(5), 15-34.
- Margo, A. (2007). *Quantitative history*. Retrieved from <http://www.users.hist.umn.edu>.
- Mihaita, N. (2006). The salience of quantitative methods applied in marketing. *Stunte Economic*, 28(1), 27-30.
- Nigeria Stock exchange (2019). *Listed companies*. Retrieved from <http://www.nse.com.ng/issuers/listed-securities/listed-companies>.
- Onukwuli, A., Onwuka, E. & Nwagbala, C. (2014). Application of quantitative techniques in small business management in Sub-Saharan African State. *Journal of International Academic Research for Multidisciplinary*, 2(5), 35-43.
- Sharma, A. Drishan, R. & Grewal, D. (2001). Value creation in markets: A critical area of focus for business to business markets. *Industrial Marketing Management*, 30(7), 391-402.
- Singla, S. (2016). Operational research: A study of decision making process. *Journal of Multidisciplinary Engineering Science and Technology*, 3(5), 5336-5338.
- Stecke, K. E. (2005). *Using mathematics to solve some problems in industry*. Retrieved from <http://www.pubsonline.informs.org>.
- Stoner, J. A. F. Freeman, R. E. & Gilbert, D. R. (2013). *Management*. 6<sup>th</sup> Edition. Dorling Kinderslay (India) Pvt. Ltd.
- Urban, G. L. (2007). *A new product analysis and decision model*. Retrieved from <http://www.jstor.org>.
- Wierenga, B. (2008). *Handbook of marketing decisions models*. Springer Science Business Media.



## Brand Personality and Customer Loyalty: Empirical Approach and Findings of a Correlational Analytical Study in the Beverage Sector of Nigeria

<sup>1</sup>Harcourt Horsfall (Ph.D), <sup>2</sup>Kayii Numbarabari, Emmanuel (MS.c) and <sup>1</sup>Mac-Kingsley Ikegwuru (PhD)

<sup>1</sup>Department of Marketing, Rivers State University, Port Harcourt, Nigeria

<sup>2</sup>Doctoral Student, Department of Education, Rivers State University, Port Harcourt, Nigeria

---

**Abstract:** This study analyzed Brand Personality and Customer Loyalty of Beverage Firms in Rivers State of Nigeria, by means of a correlation investigation to determine the significant relationships between two popular dimensions of brand personality (Brand Excitement and Brand Sophistication) and two measures of Customer Loyalty (Customers' service and Customers' relation) adopted by this study. The population of the study consists of 935 academic staff of three Universities who are customers of beverage firms in Rivers State of Nigeria. The sampling technique used was the stratified sampling technique. A total of 295 copies of questionnaire were distributed and retrieved after being answered correctly and fully. The data were analyzed using descriptive statistics, the Simple Regression and the Pearson Product Moment Correlation Coefficient (PPMC) to establish the significant relationship between the various variables used in the study. The findings revealed that brand excitement has a positive and significant relationship with customer service and customer retention; brand sophistication has a positive and significant relationship with customer service and customer retention. The study therefore, concludes that a significant and positive relationship exists between the dimensions of brand personality and measures of customer loyalty, and that brand personality is positively influencing customer loyalty of beverage firms in Rivers State of Nigeria. It was recommended beverage firms should retain the policy of aligning their brands to reflect brand excitement and brand sophistication in improving customer retention and customer service

**Keywords:** Beverage firms, Brand personality, Customers' Loyalty, Rivers State

---

### INTRODUCTION

In recent time, crafting a brand that communicates the very essence of what the product represent is very important to practitioners. As with an individual, each person has a personality and so with customers' countless perception of a brand. This perceived differences have given some misconception of Brand personality as understood by organizations in order to fulfill a multifaceted and multi-dimensional function of providing an identity to the organization. There are countless variables at play determining why a consumer chooses to purchase a single brand over another. Some consumers are highly influenced



by social media branding which reflects the brand personality that is consistent with their own self-concept. This is because the bond between consumer and brand is sometimes based on their desired self-concept rather than their actual image. Where brand personality concentrate on the concept of adding human characteristics on brands, a customer's simply choose their brands the same way they choose their friends (Alhadid, 2015; Keller, 2008).

Different industries have various ways of measuring loyalty, but the most basic way is to look at the number of purchases over a customer's lifetime in a database. Repeat buyers are the most valuable customers. Though they may not be big purchasers, it is likely that over time, the revenue from firm will top revenue from big one-time buyers (Lister, 2019). Customer loyalty is the result of consistently positive emotional experience, physical attribute-based satisfaction and perceived value of an experience, which includes the product or services. Customer loyalty is becoming more complex to achieve as a result of increased competition. Companies are trying hard to keep their customers loyal and avoid means of making room for competitors to grab these customers (Alhadid, 2015).

Businesses require customers to be particularly loyal to their brand of products because it contributes greatly in reducing costs thus improving brand as well as company's profitability. For instance a company will gain profit when loyal customers provide free advertisement through positive word of mouth. Satisfied and happy customers recommend stores, products or services to their family and friends. Hadiza (2014) revealed that each satisfied customers tells nine or ten people about their happy experiences and their dissatisfaction to the company and its products. So it becomes inevitable for the brand managers of today to probe into the context of appropriate relationship between the constructs such as brand personality and customer loyalty. It costs less to serve loyal customers because familiarity with the company's products and services makes customers less dependent on its employees for help and information. In this study we assess the relative importance of various antecedents to customer loyalty, including brand personality.

Only a few researchers, such as Plummer (1985) and David Aaker (1996) have pointed out the importance of brand personality in building a competitive advantage and brand loyalty. Studies have been carried out on brand personality with several measures; De Chernatony 1996; Hadiza, 2014; Herbig and Milewicz, 1993). Based on the results from previous studies, it is concluded that there is divisive views over the results of investigations in this area. Some researchers state that the study of brand personality is still limited, especially in the beverage firms and some of them only explore the technological side, and not much research is undertaken on the personal aspect of the customer, which is part of the innovations, This present study presented an empirical framework for understanding of the relationship between brand personality and customer loyalty of beverage firms in Rivers State of Nigeria.

### **Statement of the Problem**

Although some research efforts have been undertaken to explain brand personality in developing economies (Pierre, Haythem & Dwight, 2011; Louis & Lombert, 2010; Huber & Herrmann, 2003), many of these research efforts do not provide answers to issues pertaining to the relationship between brand personality and customer loyalty in the beverage industry.

There are many problems militating against customer loyalty of beverage firms. Problems that manifests as dissatisfaction and unsophistication of products and services which may have perceivably impeded the loyalty of customers in these companies. Besides, achieving efficient and effective customer loyalty by an organization is difficult, as a result of the changing nature of customers, ambiguity and instability of environmental factors. Sound and robust marketing commitment on the part of organizations are imperative to their survival and growth. In order to formulate and implement effective and efficient brand personality programmes, beverage firms should have a thorough and continuous understanding of the extent of customer loyalty to their firms. In view of these, this current study determine the relationship between brand personality and customers' loyalty of beverage companies in Rivers State of Nigeria.

### **Purpose of the Study**

The main objective of this study is to investigate the relationship between brand personality and customer loyalty of beverage firms in Rivers State of Nigeria. Specifically, the study sought to:

- i. To determine the extent of the influence of brand excitement on customers service
- ii. To ascertain the extent of the influence of brand sophistication on customers' retention

### **Research Questions**

However, from the objectives of the study, the following research questions guided the study.

- i. To what extent does brand excitement influence customers service?
- ii. To what extent does brand sophistication influence customer retention?

## **LITERATURE REVIEW AND HYPOTHESES**

### **Brand Personality**

Brands are omnipresent in today's society. They surround us in our everyday life (Kapferer, 2007; Klein, Palmer & Conn (2000). But what exactly is a brand? The American Marketing Association describes a brand as a "name, term, sign, symbol, or design, or a combination of them, intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competition. From a different angle, brands are defined as intangible assets that are able to produce benefit for both the internal and external stakeholders of the company – such as employees, customers, suppliers or civil society organizations. Again another definition argues that brands are a set of perceptions (Kapferer, 2007). These definitions are only a few examples for the manifold angles from which researchers and practitioners approach the brand phenomenon. The diversity of brand definitions also suggests that different perspectives can be taken when exploring the world of brand, such as the legal, the management or the customer perspective.

From the legal perspective, the brand is the right that protects the use of a name, a logo or a combination of them. The legal term for a brand is trademark. This trademark is used to identify the product or the service of a company and to differentiate it from offerings of competing manufacturers (Keller, 2008). However, even though brands legally exist from the

day of their registration on, the company constantly has to build and manage the brand to defend it against a premature dissolution – there is no direct link between owning a brand and economic outcomes (Herbig&Milewicz, 1993). Thus, different brands although being protected in a similar legal manner may result in different market shares, cash flows or profit margins (Keller, 2008; Kerin & Sethuraman, 1998). The explanation resides in the fact that every brand has its positioning and that this positioning contributed to the emergence of brand-specific images in the minds of customer which, in turn, influence customers' purchasing decisions (De Chernatony, 1999; Keller & Lehmann, 2003). The more unique a brand's positioning, and the closer this positioning gets to the ideal positioning a customer or segment expects in a given product category, the better the brand's economic performance. Therefore, from the company's perspective, branded articles are device to create some form of "imperfect competition". A product comprises non-distinguishing and distinguishing intrinsic attributes. For instance, pens can be used to make a note. But how do the different pens differ from each other? The brand name, the logo and other extrinsic attributes such as the price or the packaging are the components which are needed to create a brand. The brand summarizes what a company's offerings stand for and what they are like. Successful brands often manage to convince customers that the offerings sold under their name and logo are unique, or at least clearly different from other offerings on the same market. As a consequence, brands are increasingly considered to constitute critical resources allowing companies to gain a competitive advantage over their competitors(Keller, 2008). They are seen as intangible assets which contribute to the financial performance of the company. For instance, through higher prices or quick consumer responses to marketing activities, they lead to increased and faster cash flows. Also, the vulnerability of cash flows is limited through customer loyalty towards a brand.

According to Keller (2008), there are four key dimensions of brand personality; this include Brand Excitement, brand sincerity, brand excitement, brand sophistication, and brand toughness.

**Brand excitement:** The first dimension of brand personality is brand excitement, whose attributes are represented as intelligence, success, reliability and expertise, and it contains such traits as playful, daring, imaginative and spirited.

**Brand sincerity:** The second dimension of brand personality is brand sincerity. Genuine, honest, wholesome and cheerful dispositions come to mind when considering the traits associated with this dimension. With so many advertising outlets currently available to a brand from traditional print to marketing through social media, today's public is more skeptical than ever when it comes to a brand's true level of sincerity. Day in, day out, consumers are inundated with brand messaging throughout the day, social media activity streams flooded with special events promotions, discounts, and contests to win free products or services. Unfortunately, too many of these brand messages provide very little value to consumers, thereby tainting public perception on whether brand sincerity is closer to being an oxymoron than an attainable personality trait for a brand.

**Brand sophistication:** The third dimension of brand personality is brand sophistication where common characteristics associated with this dimension include charming, refined, elegant and poise.

**Brand Toughness:** The final dimension of brand personality is brand toughness. Powerful, forceful, potent and outdoor attributes come to mind when considering the traits associated with this dimension.

### **Customer Loyalty**

Customer loyalty is the point at which customers experience affirmative mind-sets for and fit into place in encouraging behaviors in the direction of a company/brand. Customer loyalty is the end result of continuously optimistic emotional experience, substantial attribute-based contentment and professed value of an experience, which embraces the product or services. Customer loyalty is becoming more composite to realize as a result of augmented competition. Companies are trying hard to maintain their customers loyal and circumvent means of making room for competitors to take hold of these customers (Alhadid, 2015).

**Hayes (2015)** proposed a customer loyalty measurement framework that will be of practical value to business, helping them to understand how to conceptualize and measure customer loyalty. **Hayes (2015)** notes that once created, these metrics can be employed by businesses in a multiplicity of ways to advance marketing, sales, human resources, service and support processes. The two general approaches he proposed in measuring customer loyalty are: 1) objective approach and 2) subjective (self-reported) approach.

**Objective measurement approach** consists of system-captured metrics that absorbs hard numbers concerning customer behaviors that are valuable to the company. Data can be acquired from historical records and other purposeful sources, including purchase records (confined in a CRM classification) and other online behavior. Examples of objective loyalty data comprise computer generated records of “time spent on the Web site,” “number of products/services purchased” and “whether a customer renewed their service contract.”

**Subjective measurement approach** engrosses soft numbers concerning customer loyalty. Subjective loyalty metrics comprise customers’ self-reports of their mind-set regarding the company and behavior toward the company. Examples of subjective loyalty data consist of customers’ ratings on standardized survey questions like, “How likely are you to recommend <Company> to your friends/colleagues?”, “How likely are you to continue using <Company>?” and “Overall, how satisfied are you with <Company>?”

This objective/subjective dichotomy is intended to supply a first-rate structure for thrashing out measurement approach.

### **Empirical Review**

Some empirical studies have investigated brand personality. For example, Roustasekehravani,

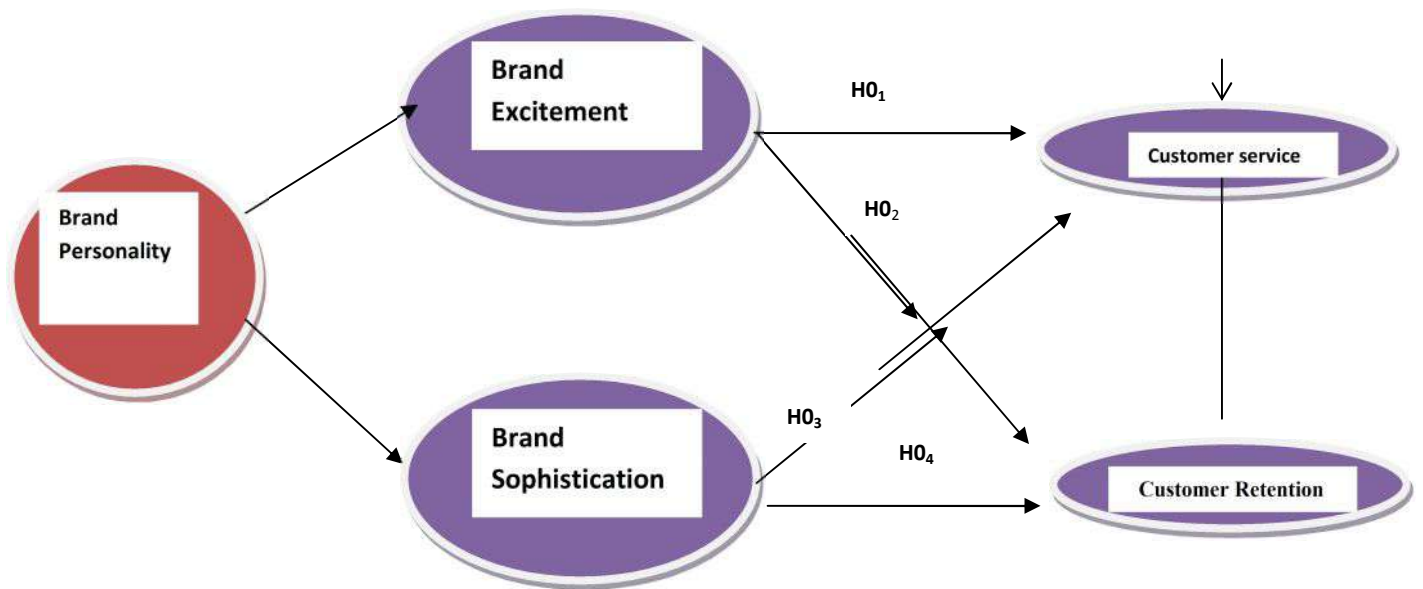
Abubakar, Azam and Pooladireishahri (2014) investigated the impact of brand personality, customers' satisfaction and loyalty in the banking industry. The study adopts the comparative methods to collect data, and also analyzed with the aid of the SPSS and especially utilizing the independent t-test on the mean of three groups to determine that there was a significant difference between the variables studied.

Pierre, Haythem and Dwight (2011) examined the impact of brand personality and sales promotions on brand equity: Empirical study on commercial banks clients in Jordan, using two dimensions of competence: ruggedness and sales promotions on customer satisfaction. The statistical tools used were the simple regression analysis and t-test statistics. The results demonstrated that there is a statistical significant impact of the dimensions of brand personality.

Louis and Lombart (2010) studied the influence of brand personality and major relational consequences on customer loyalty of mobile telephone subscribers in Kuala Lumpur, Malaysia using a descriptive and cross-sectional method. The stratified sampling technique was employed and a sample of 321 was used in the study. The population consists of students and staff of faculty of Management, University of Technology, Kuala Lumpur, Malaysia. Data were analyzed using descriptive and inferential statistics (factor analysis, correlation and regression tests). The findings reveals that the influence of brand personality on customer loyalty within mobile telephone companies was both directly and partially moderated by firms responses and mediated by service quality.

Magin, Algesheimer, Huber and Herrmann (2003) examined brand excitement and customers' satisfaction of customers of internet service providers in media industry, Johannes Gutenberg. The study used an expo facto method and adopts the questionnaire to gather data. The Spearman's rank order correlation was used for data analysis and it was found that brand excitement has a strong positive interaction with customers' satisfaction. The study concludes that customers' satisfaction is significantly influenced by brand excitement as a viable trait of brand personalization and recommends that ISP promote friendly and polite and honest customer service to solidify customers' relationship with the firm.

From the review of literature, the following operational model of brand personality and customer loyalty was designed:



**Figure 1:** Operational Model of Brand Personality and customer Loyalty

Source: Designed by the Researchers.

From the operational model, the following hypotheses were formulated and tested for significance.

- H0<sub>1</sub>.** There is no significant relationship between brand excitement and customer service.
- H0<sub>2</sub>.** There is no significant relationship between brand excitement and customer retention.
- H0<sub>3</sub>.** There is no significant relationship between brand sophistication and customer service.
- H0<sub>4</sub>.** There is no significant relationship between brand sophistication and customers' retention.

### Research Methods

A cross-sectional survey was selected for this study because it was easy to embark on and the result from the sample can be extrapolated to the larger population. The study adopted the correlational survey design to determine the extent of the relationship between brand personality and customer loyalty. The target population in the study was 1121 academic staff of three Universities in Rivers State (Rivers State University (RSU), Port Harcourt, Ignatius Ajuru University of Education (IAUE), Rumuolumeni, and Captain Elechi Amadi Polytechnic (CEAP). Rumuola) who consumes beverage firms' products domiciled in Port Harcourt. Harcourt and Ikegwuru (2018) used similar method. The cluster sampling technique was employed to select the respondents for the study. To obtain sample size of the academic staff from the population

of 1121, Taro Yemen's Formula for sample size determination was used. The formula is  $S = N/(1 + Na^2)$ .

**Table 1: Distribution of Respondents in Institutions of Higher Learning in Rivers State**

Institutions	Frequency	%	No of respondents
RSU	519	46	136
IAUE	310	28	82
CEAP	292	26	77
<b>Total</b>	<b>1121</b>	<b>100</b>	<b>295</b>

**Source: Survey Data, 2020.**

Further, the instrument used for data collection was the "Brand Personality Scale". The brand personality scale constructed was short, easy to administer and consists of 12 items. The questionnaire was pre-tested using respondents in three higher Institutions in Rivers State to substantiate its reliability. The analyzed data was presented using descriptive statistics, frequency tables, Simple regression and Pearson Product Moment Correlation (PPMC). Descriptive statistics permit the generalization of the data to furnish an explanation of the configuration or the characteristics of the population as symbolized by the sample. The simple regression and Pearson Moment Correlation Coefficient was used to analyze the data generated for the study. The hypotheses were tested at 0.05% level of significance (95% confidence interval) with the aid of the Statistical Package for Social Science (SPSS).

## Results and Discussion

**Research Question 1:** To what extent does brand excitement influence customers' service?

**Table 1: Summary of Regression on the extent of the influence of brand excitement on customers' service**

Variables	N	$\bar{x}$	Sd	R	$R^2$	Adjusted R
Brand excitement	295	63.1	2.50			
				0.70	0.4900	0.012
Customers' service	295	60.7	1.78			

$$R^2 * 100 = 0.4900 * 100 = 49\%$$

Brand excitement scores of the respondents account for 49% of the variance in the respondents' customers' service. That is to say that brand excitement can predict customers' service by 49% provided by the beverage firms.

**Research Question 2:** To what extent does brand sophistication influence customers' retention?

**Table 2: Summary of Regression on the extent of the influence of brand sophistication on customers' retention**

Variables	N	$\bar{x}$	Sd	R	R <sup>2</sup>	Adjusted R
Brand sophistication	295	58.9	2.53			
				0.73	0.5100	0.012
Customers' retention	295	56.5	1.74			

$$R^2 * 100 = 0.5100 * 100 = 51\%$$

Brand sophistication scores of the respondents account for 51% of the variance in the customers' relation. That is to say that brand sophistication can predict customers' retention by 51% provided by the beverage firms.

### Hypotheses

The researchers had formulated four hypotheses in order to test the relationship between dimensions of brand personality and measures of customers' loyalty. The Pearson Correlation Coefficient is calculated using the SPSS 23.0 version to establish the relationship among the empirical referents of the predictor variable and the measures of the criterion variable. Correlation coefficient can range from -1.00 to +1.00. The value of -1.00 represents a perfect negative correlation while the value of +1.00 represents a perfect positive correlation. A value of 0.00 represents a lack of correlation. In testing hypotheses one to four, the following rules were upheld in accepting or rejecting the null hypotheses: All the coefficient values that indicate levels of significance (\* or \*\*) as calculated using SPSS were rejected and therefore our alternate hypotheses accepted; when no significance is indicated in the coefficient r value, we reject our alternate hypotheses. Our confidence interval was set at the 0.05 (two tailed) level of significance to test the statistical significance of the data in this study. Relationship between brand excitement and the measures of customer loyalty (Customer service and Customer retention).

**Table 3: Correlations for Brand Excitement and measures of Customer Loyalty**

		Brand Excitement	Customers Service	Customers Retention
Brand Excitement	Pearson Correlation	1	.650**	.730**
	Sig. (2-tailed)		.000	.000
	N	295	248	295
Customers service	Pearson Correlation	.650**	1	.626**
	Sig. (2-tailed)	.000		.000
	N	295	248	295
Customers Retention	Pearson Correlation	.730**	.626**	1
	Sig. (2-tailed)	.000	.000	
	N	295	248	295

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



Table 3, illustrates the test for the first two previously postulated bivariate hypothetical statements. The results show that for:

**Ho<sub>1</sub>:** There is no significant relationship between brand excitement and customer service.

From the result in table 3, the correlation coefficient (rho) shows that there is a positive relationship between brand excitement and customers' service. The *correlation coefficient* 0.650 confirms the magnitude and strength of this relationship and it is statistically significant at  $p < 0.000 < 0.05$ . The correlation coefficient represents a high correlation between the variables. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate hypothesis accepted. Thus, there is a significant relationship between brand excitement and customers' service offered by beverages firms in Rivers State of Nigeria.

**Ho<sub>2</sub>:** There is no significant relationship between brand excitement and customer retention.

From the result in table 3, the correlation coefficient (rho) shows that there is a positive relationship between brand sophistication and customers' retention. The *correlation coefficient* 0.730 confirms the magnitude and strength of this relationship and it is statistically significant at  $p < 0.000 < 0.05$ . The correlation coefficient represents a high correlation between the variables. Therefore, based on statistical evidence the null hypothesis earlier stated is hereby rejected and the alternate hypothesis accepted. Thus, there is a significant relationship between brand sophistication and customers' retention of beverage firms in Rivers State of Nigeria.

#### Relationship between Brand Sophistication and the Measures of Customer loyalty

**Table 4: Correlations of Brand Excitement and Customer Loyalty**

		Brand Sophistication	Customers' service	Customers' retention
Brand Sophistication	Pearson Correlation	1	.722**	.715**
	Sig. (2-tailed)		.000	.000
	N	295	295	295
Customers' service	Pearson Correlation	.722**	1	.626**
	Sig. (2-tailed)	.000		.000
	N	295	295	248
Customers' retention	Pearson Correlation	.715**	.626**	1
	Sig. (2-tailed)	.000	.000	
	N	295	295	295

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

**Ho<sub>3</sub>:** There is no significant relationship between brand sophistication and customer retention.

From the result in table 4, the correlation coefficient (rho) shows that there is a positive relationship between brand sophistication and customers' retention. The *correlation*

*coefficient* 0.722 confirms the magnitude and strength of this relationship and it is statistically significant at  $p\ 0.000 < 0.05$ . The correlation coefficient represents a high correlation between the variables. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate hypothesis accepted. Thus, there is a significant relationship between brand sophistication and customers' retention of beverage firms in Rivers State of Nigeria.

**Ho<sub>4</sub>** There is no significant relationship between brand sophistication and customer service.

From the result in table 4, the correlation coefficient ( $\rho$ ) shows that there is a positive relationship between brand sophistication and customers' service. The *correlation coefficient* 0.715 confirms the magnitude and strength of this relationship and it is statistically significant at  $p\ 0.000 < 0.05$ . The correlation coefficient represents a high correlation between the variables. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate hypothesis accepted. Thus, there is a significant relationship between brand sophistication and customer service of beverage firms in Rivers State of Nigeria.

### **Discussions**

The first and second hypotheses sought to determine the relationship between brand excitement and customers' service of beverage firms in Rivers State of Nigeria using the Pearson's product moment correlation analysis. The hypothesis was statistically tested and rejected. The alternative hypothesis that brand excitement is positively related to customers' service was accepted. The concept of brand excitement as measured in this study dealt with issues that bothered on trust and belief held towards the brand. To satisfy customers and make them loyal is judged by customers excitement on services rendered. Magin, et al. (2003) posit that customers service focuses on the construct that customers have the intention to buy a given product repeatedly after deriving satisfaction from initial use or experience. Given that the customer experience service failure or inadequate product, their level of excitement is attributed to the brand. From the study's findings, we understand that when brand personality is positively related to customer loyalty, the concerned organization reaps from it. Our findings agree and supports the findings of Magin, et al, (2003); Louis and Lombart (2010) and Pierre, et al (2011) who found that brand personality influence significantly customers loyalty.

It was hypothesized in the third and fourth hypotheses that brand sophistication does not positively relate to customers retention, the outcome of the test revealed that brand sophistication moderately, significantly and positively relates with customers retention. It is possible to argue that brand sophistication triggers customers retention of a specific brand over others, and this is based on subjective judgment. Our findings is not consistent with Roustasekehravani, Abubakar, Azam and Pooladireishahri (2014) findings that brand sophistication had no effect on subject's re-patronage intentions or in their relations. This is a more than sobering realization for brand sophistication, since it implies that their efforts to improve their customers' satisfaction in order to bring about loyalty might be lost if companies does not relate well with customers who are in search of variety of alternatives to satisfy

themselves, and by so doing repatronize the company. , since customers portray better patronage toward brands (Harcourt & Ikegwuru, 2019) .Therefore, it is noted that brand sophistication is another potential determinant of customer loyalty.

### **Conclusion**

The study's findings indicate that the dimensions of brand personality has a considerable association with the measures of customer loyalty such that the more efficiently an organization manages brand personality, the better the employees will perform and offer better services to the consumers. The study therefore, concludes that a significant and positive relationship exists between brand personality and customer loyalty, and that brand personality is positively influencing customer loyalty of beverages firms in Rivers State of Nigeria.

### **Recommendations**

The recommendations provided herein emanate from the facts presented in the study, and therefore, in line with its findings and conclusions recommends as follows:

- i. Beverage firms should retain the policy of aligning their brands to reflect brand excitement and brand sophistication in improving customer retention and customer service.
- ii. Beverage firms should inculcate brand excitement in their planning, development and implementation strategy to spur appreciable growth in sales as well as meeting customers taste appeal.

### **References**

- Aaker, D. (1996). *Building strong brands*. The Free Press, New York, NY.
- Aaker, J. (1997). Dimensions of brand personality. *Journal of Marketing Research*, 34(3), 347-356.
- Alhadid, A.Y (2015). The impact of brand personality on brand Loyalty: An empirical study on mobile market at Jordan. *International Review of Management and Business Research*, 4(2), 431-433.
- Crane, A., Matten, D. & Moon, J. (2008). *The emergence of corporate citizenship: Historical development and alternative perspectives. handbook of research on global corporate citizenship*, Cheltenham (Edward Elgar) 2008, pp 25-49.
- De Chernatony, L, (1996). The brand management odyssey, *Journal of General Management*, 21(4), 15-30
- Hadiza, S. A. (2014) .Brand loyalty and consumers of Northern Noodles Nigeria Limited: An analysis of factors. *European Journal of Business and Management*, 6(8), 67-72.
- Harcourt, H. & Ikegwuru, M.K. (2018). Brand equity and market performance: An empirical study of food and beverage firms in Rivers State. *ILARD International Journal of Economics and Business Management*, 4(4), 1-14

- Harcourt, H. & Ikegwuru, M.K. (2019). Impact of brand credibility on customer patronage of Table Water Firms: Evidence from Nigeria. *Global Scientific Journals*, 7(11), 312-325
- Herbig, P. & Milewicz, J. (1993). The relationship of reputation and credibility to brand success. *Journal of Consumer Marketing*, 10 (3), 18-24.
- Hayes, B. (2015). What is customer loyalty? Part 2: A customer loyalty measurement framework. Retrieved from *businessoverbroadway.com*. Accessed on February 19, 2019.
- Kapferer, J.N (2007). *The New Strategic Brand Management: Creating and Sustaining Brand Equity Long Term*. New Jersey: Kogan Page Publishers
- Keller K.L & Lehmann D.R. (2003). How do brands create value? *Marketing management*, May/June; p. 26-31.
- Keller, K.L. (2008). *Strategic Brand Management Building, Measuring and Managing Brand Equity*. New Jersey: Prentice Hall.
- Keller, K.L. (2008). Strategic brand management: Building, measuring, and managing brand equity. 3rd ed. Upper Saddle River, NJ: Prentice Hall
- Kerin, R.A & Sethuraman, R (1998). Exploring the brand value-shareholder value nexus for consumer goods companies. Retrieved from *www.google.com*. Accessed on January 14, 2020.
- Klein, K. J., Palmer, S. L., & Conn, A. B. (2000). *Interorganizational relationships: A multilevel perspective*. In K. J. Klein & S.W.J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations* (pp. 267- 307). San Francisco: Jossey-Bass.
- Louis, D. & Lombart, C. (2010). Impact of brand personality on three major relational consequences (Trust, Attachment, and Commitment to the Brand). *Journal of Product & Brand Management*, 19(2), 114-130.
- Magin, S., Algesheimer, R., Huber, F & Herrmann, A. (2003). The impact of brand Personality and Customer Satisfaction on Customer's Loyalty: Theoretical Approach and Findings of a Causal Analytical Study in the Sector of Internet Service Providers. *Electronic Markets* 13 (4), 294–308.
- Pierre, V., Haythem, G., & Dwight, M. (2011). The impact of brand personality and sales promotions on brand equity. *Journal of Business Research* 64, 24–28.
- Plummer (1985), *Brand Personality: A strategic concept for multinational advertising, marketing educator's conference*, Young & Rubicam, New York, pp. 1-31,
- Roustasekehravani, A., Abubakar, A.H, Azam., H & Pooladireishahri, M. (2014). Do brand personality really enhance satisfaction and loyalty toward Brand? A Review of theory and empirical research. *European Journal of Business and Management*. 6(25), 174-183.

## About the Authors



**Dr. Harcourt, Horsfall** is a Senior Lecturer in Marketing, at the Rivers State University, Port Harcourt, Nigeria. His research interests are related to branding, information adoption as well as the drivers of technology performance in organizations. Harcourt, Horsfall has authored or co-authored several articles in referred Journals.



**KayiiNumbarabari, Emmanuel** is a Doctoral Student in the Department of Business Education, Rivers State University, Port Harcourt, Nigeria, and a Senior Research Fellow with Universal Basic Education Board, Port

Harcourt, Nigeria. His research interest are in business education, management, commercial education,, economics of education, educational research and statistics. Kayii belongs to many professional bodies such as the Nigerian Institute of Management Chartered, Teachers'Registration Council of Nigeria, Association for Innovative Technology in Education, Association of Business Educators of Nigeria. He has authored or co-authored several articles in referred Journals. Kayii can be contacted at [atnumbarabari,kayii@ust.edu.ng](mailto:atnumbarabari,kayii@ust.edu.ng).



**Dr. Mac-Kingsley Ikegwuru** is a doctoral degree holder in Marketing (Supply Chain Option) in the Department of Marketing, Rivers State University, Port Harcourt, Nigeria. He currently conducts research on brand, enterprise resource planning systems, and technological applications in logistics and supply chain management. . He has authored or co-authored several articles in referred Journals. Mac-kingsleyIkegwuru is the corresponding author and can be contacted at [bestvaluecrest@gmail.com](mailto:bestvaluecrest@gmail.com).