



# e-Governance Conference

Covenant University Conference on e-Governance in Nigeria - CUCEN2016



## **3<sup>rd</sup> COVENANT UNIVERSITY CONFERENCE ON E-GOVERNANCE IN NIGERIA (CUCEN 2016)**

### **Theme:**

***“Information and Communication  
Technologies for Governance in  
Nigeria: Achievements, Challenges  
and Opportunities”***

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## FOREWORD

In recent years, Nigeria has responded to the global imperative to integrate information and communication technologies (ICTs) in administrative and political processes through a variety of strategies. These include the development of an e-government framework in 2015 by the Federal Ministry of Communication Technology in collaboration with its agencies and industry stakeholders. Accordingly, federal ministries, departments and agencies have begun the automation of their administrative processes especially in the areas of budgeting, approvals and procurements. Also, states such as Lagos and Edo, have been at the vanguard of ICT utilization and digitization. Overall, many successes have been recorded particularly in the last two years. Despite these positive developments however, Nigeria continues to trail in many indicators of e-government practice and readiness. For instance, in the United Nations E-Government Survey for 2014, the country ranked 19 out of top 20 African countries, and 144 globally (out of 193 countries). Though this was an improvement on Nigeria's ranking (up by 21) between the 2014 and 2012 surveys, the picture remains dismal.

Beyond the global ranking, at the level of practice, there is not much progress beyond the theoretical (or what is on paper). Though federal government ministries, departments and agencies complied between 2011 and 2015 with some of the Ministerial directives in many areas such as having a website presence, they have not explored the totality of ICT application as a significant strategy in achieving their mandate. This is observed from the most basic (lack of dynamism and interactivity of websites) to the complex (absence of innovative utilization of task-oriented applications). This situation raises issues that call for

the examination of factors that hinder or facilitate a more expansive diffusion and adoption of ICTs in government at all levels. We note though that while the discussion about e-governance focuses mostly on the government as a state apparatus, our conceptualization of this process is broad enough to extend to all areas of administrative practice including activities in the private sector and civil society. It is this broader milieu of e-governance that informed the establishment of the Covenant University Conference on E-Governance in Nigeria (CUCEN) in 2014.

The main goal of CUCEN is to provide a platform for scholars, researchers, policymakers and industry actors to examine the state of e-governance in Nigeria and discuss practical strategies for utilizing ICTs to advance the goals of good governance, civic engagement, political participation, and peace and conflict resolution. It is expected that the solutions and strategies that emerge from deliberations at CUCEN2016 will be equally useful to other African countries particularly those whose e-government readiness and adoption are at the same level as Nigeria's.

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***Law, Administration of Justice and E-governance***



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**E-PATH TO IMPROVING LEGAL EDUCATION STANDARD IN  
NIGERIA: THE RIGHT USE AND IMPACT, BARRIERS AND  
PRACTICAL SOLUTIONS**

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**Abstract**

*Education remains the bedrock of development in any nation. According to Nelson Mandela, education is the most powerful weapon you can use to change the world. It is however pertinent to know that education is limited to time and space. As such, the world is changing and the environment is equally changing with it every day through education. Many developed countries have attained to the level of development through investing in education and encouraging e-learning in schools. E-path to improving legal education is an act of Information Communication Technology (ICT), which can be used to enhance learning in law schools and individually. In Nigeria, e-learning in law faculties is still under-utilized, many are not even aware of what is called e-learning when other developed nations are well advanced in education through ICT. This could be a pitfall towards developing legal education in Nigeria. Even though mobile phone(s) and computer are means of sharing and accessing information, and a good number of Nigerians have it, yet, many do not use it for the right purpose. The paper will then explore on the right use and benefits of improving the legal education standard in Nigeria through ICT devices, discuss the imminent barriers to the optimal use of ICT and conclude with practical steps that can be taken to overcome the barriers in enhancing legal education standard in the country. The author adopts a non-empirical research methodology, by focusing on literature reviews and extensive research on how to enhance legal education through ICT in Nigeria.*

**Keywords:** *Legal Education, ICT, E-Learning, Nigeria*

## Introduction

The impact of Information Communication Technology (ICT) or Information Technology (IT) to the advancement of education across the clime cannot be over-emphasized. ICT became so popular and pronounced towards the late 20 century, which we regard to as the information age or computer age.<sup>1</sup> Since then IT has improved and replaced most manual systems in such a way that everyone has to be computer oriented and literate to be better placed in organizations and workplaces. The extent of the use of IT these days confirms to the measures of development that the IT world is achieving. This has encouraged widely the application and use of IT in schools to enhance learning and teaching methods. Invariably, this has impacted and improved on legal education through the introduction of ICT facilities in the law faculties, law schools and in schools of advanced legal studies. In effect, this is enhancing the professional lives of prospective lawyers and lawyers via the introduction of the new medium-the internet. No doubts, IT is pivotal to achieving better standard of education, it is quicker in terms of research compared to the old ways of flipping through pages of books and searching for materials from one library to another.

Today, researchers have better ways of searching for materials online through different research tools/engines e.g Google Scholars, LexisNexis, Google Search, Jstor, Hein online, Wiley On-line library, Law pavilion, Westlaw etc. This has helped to ease the stress of research in a way, encouraging more research. The legal education has equally moved in that direction through the use of information, communication and instructional technologies to enhance student's learning of the law and to provide for a web environment for teaching law. However, with this innovation and new knowledge, the pace at which this is been utilized is not so encouraging, perhaps, due to the level of exposure of students to the use of IT in law faculties and schools, inadequate facilities to equip students with the IT knowledge towards improving the standard of legal education in the country and many other challenges.

This paper would discuss the impact of IT on legal education, its right use and impacts, barriers/challenges to the use of IT in enhancing the standard of legal education in Nigeria and conclude with recommendations on practical steps toward achieving this aim.

The paper will be divided into five sections: the first section will discuss the concept of education viz a viz legal education, ICT and its benefits to the development of Nigeria as a country; section two will discuss the right use of the various ICT tools that can be used for E-learning in law schools, section three will analyze the potentials barriers/challenges to e-learning in law colleges/faculties in Nigeria, section four will discuss the lessons that can be learnt from

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<sup>1</sup> Castells, M. (1999). *The Information Age, Volumes 1-3: Economy, Society and Culture*. Cambridge (Mass.); Oxford: Wiley-Blackwell.

other IT advanced jurisdictions in legal education and lastly, section five will conclude with practical steps to improving legal education through the use of IT tools in Nigeria.

### **The Impact of E-learning to Legal Education**

Education, according to Nelson Mandela is a powerful weapon anyone can use to change the world. This shows how important education is to sustainable development and growth of any given society. Consequently, there is urgent need to improve on the education standard in Nigeria through e-learning.

E-learning is a new and advanced medium of impacting knowledge or a paradigm shift from the traditional face to face method of impacting knowledge in schools.<sup>2</sup> According to Marina Nehme, e-learning is a method of learning supported through the use of Information Technology.<sup>3</sup> Interestingly, many institutions of law have designed various e-approaches to teaching law to familiarize the students with IT. For example application into the Nigerian Law schools are done via online application, where prospective students upload necessary documents to process their application. Further at the Nigerian Law Schools now, students are expected to make presentations of their court and chamber attachments in power points presentation, assignments are submitted online, delivering of teaching materials via emails for students to download unlike the usual hard copies. However, there is still a gap in it effective use, perhaps, because Nigeria is still advancing in the technical knowhow, as a result, e-learning cannot be said to have impacted so much on the standard of legal education in Nigeria. Some of the challenges to the effective use of IT in the Nigerian law faculties and colleges of law would be discussed later in this paper.

E-learning has opined by Bloxham<sup>4</sup> involves far more than the delivery of teaching materials via the internet or intranet.<sup>7</sup> He provides a report on a pilot survey carried out by BILETA which found that most law schools use the Virtual Learning Environments (VLE) to upload teaching/learning materials rather than providing the students with hard materials, as in the past.<sup>5</sup> This is to confirm some of the progress law schools/faculties in other jurisdictions have made with the information age. Suriyakuari Lane in her article<sup>6</sup> emphasized a need to blend the

<sup>2</sup>Jethro, O. O., Grace, A. M., & Thomas, A. K. (2012). E-Learning and its effects on teaching and learning in a global age. *International Journal of Academic Research in Business and Social Sciences*, 2(1), 203.

<sup>3</sup>Nehme, M. (2010). *E-learning and students' motivation*. *Legal Educ. Rev.*, 20, 223.

<sup>4</sup>Bloxham, S. (2005). Widening Access and the use of ICT in Legal Education. *The Law Teacher*, 39(1), 93-105.

<sup>5</sup> Ibid.

<sup>6</sup>Lane, S. (2015). Information Age to Interaction Age in Legal Education: How Far Have We Progressed?. *American Journal of Educational Research*, 3(12), 1511-1518.

information age with interactive age as information age is labelled as teaching with the internet<sup>7</sup> and more often non-interactive. Generally, e-learning engages students more than the traditional note taking and it reduces the face to face lecturer/student approach to learning. And for the legal education, one of the key functions of e-learning is that it would help law students to develop analytical, reflective, critical, research skills, verbal and written communication skills towards becoming independent researchers. It is also a gateway to acquiring knowledge, deep learning and an understanding of legal concepts and legal principles through the online discussion forums and chat rooms if activated. Greave and Lynch indicate that online discussion forums, chat rooms are forms of better learning environment, because this enables both the tutor and students to interact, contribute to subject matter through posts as co-participants in the learning process.<sup>8</sup>

To stress the importance of IT to learning and development, Onome Osifo Whiskey writes, impact of e-learning in the society is like ‘the god of the industrial society, at once commanding the heart and soul of the home’.<sup>9</sup> This shows that IT has become a core aspect of our daily lives and work today. Therefore, promoting the quality of education through the advanced method by the use of e-learning is improving on our daily lives and working capacity. No doubts, Nigeria is making some progress as well through the initiation of online programs or courses. Two of its kinds are the introduction of the National Open Universities of Nigeria (NOUN) and the Open Distance Learning run by the University of Ilorin, Kwara State. Yet, the legal education cannot be said to have achieved much progress in terms of blending the information age with the interactive age towards improving legal learning in the country. The next session would discuss the right use of IT to learning in Nigeria.

### **The right use of IT tools towards effective legal education**

Interestingly, the way computer or the web is designed is usually user friendly that anyone without necessarily being thought in computer programs could access and use. Nigeria is one of the countries that have taken optimal advantage of the information age through the use of mobile phones either with android and window applications, tablets, laptops, desktop computers,

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<sup>7</sup>McNamara, L. (2001). Flexible delivery, educational objectives and the (political) importance of teaching. *The Law Teacher*, 35(2), 198-215.

<sup>8</sup>Greaves, K., & Lynch, J. (2012). Is the Lecturer in the Room? A Study of Student Satisfaction with Online Discussions in Practical Legal Training. *Greaves, K & Lynch, J*, 147-75; Cranney, M and others, “Instructor’s Discussion Forum Effort: Is it Worth it?” (MERLOT Journal of Online Learning and Teaching (7 (3) 337-348 201

<sup>9</sup>Onome Osifo Whiskey, ‘*The Pen as an Endangered Species*.’ TEL Nigeria’s Independent weekly No 17 April, 2006 p 57.

hijacking cyber world etc. But, the question that readily comes to mind is for what purpose are Nigerian students using these devices? Is it to the advancement of knowledge and self development intellectually or for social purposes? And to what extent are they making use of the ICT facilities on their mobile phones, tablet, laptops, desktop to promote e-learning?

Statistics show that Nigeria was ranked 7th in 2014 evaluation of mobile users with a total number of 167,371,945 users out of the 177,155,754 population.<sup>10</sup> While the National Bureau of statistics gives 63.9% of individuals' access to phones in Nigeria,<sup>11</sup> it reports that more than 95% of the population does not have access to computers and/or internet.<sup>12</sup> What most Nigerian students do most on their mobile phones or laptops computers, tablets is to chat, tweet, face book, watch movies, video, pornography, whatsapp etc, that is for social exchange of information purposes which contribute so little to knowledge in some instances. According to Facebook, 7.1 million Nigerians use Facebook on a daily basis and 15 million Nigerians use the site monthly through their mobile devices.<sup>13</sup> There is little effective use of interactive technological devices to boost learning amongst the Nigerian students in general.

Going by Suriyakuari Lane article, to effectively achieve progress in legal education using e-learning, there is need for law students and lecturers to blend information and interactive IT together for continuous improvement in the legal education.<sup>14</sup> For example, what some law students and lecturers know how to do in terms of using IT in learning is just to receive and send emails, many cannot even use Microsoft office except Microsoft word, no idea on how excel or power points or outlook works for some law lecturers and students alike.

It is high time law lecturers and students began to advance e-learning through the activation of peoplesoft links to enable online discussion forums, video conferencing, chat rooms to promote effective learning through bilateral and multilateral arrangements which is still very under used in Nigeria. For instance, at the University of Cape Town, South Africa, to promote e-learning at

<sup>10</sup>[https://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_number\\_of\\_mobile\\_phones\\_in\\_use](https://en.wikipedia.org/wiki/List_of_countries_by_number_of_mobile_phones_in_use) accessed 5 February 2016.

<sup>11</sup>2011 Annual Socio-Economic Report: Access to ICT. National Bureau of Statistics <[www.nigeriastat.gov.ng](http://www.nigeriastat.gov.ng)> accessed 29 March 2016, Pg. 8.

<sup>12</sup>Ibid.

<sup>13</sup>Yemi John, 15 million Nigerians use Facebook monthly on their mobile devices (September 2015) <

<https://techpoint.ng/2015/09/10/15-million-nigerians-use-facebook-monthly-mobile-device/>> accessed 5 February 2016.

<sup>14</sup> Lane, S. (2015). opcit note 6.



the faculty of law, the IT unit set up for all the law students VULA,<sup>15</sup> which is designed as a workplace where each student gets information with regards to his/her courses, general announcement and activities of the university on a daily basis, the school calendar, resources for each semester, online discussion, career services, semester's result and everything pertaining to learning at UCT. No doubts, this has really improved law students knowledge of IT and learning in the institution.

For e-learning to therefore improve the standard of legal education in Nigeria, it becomes imperative to beginning to apply the IT tools appropriately and for intellectual purposes ultimately through the combination of information and interactive medium in law schools and law faculties. Such as the introduction of Massive Open Online Courses (MOOC), online chat rooms, video conferencing, seminars on effective use of Microsoft apps, lectures delivered via CD Rom, virtual presentations, and class presentations using IT tools. Further on this, Nwosu and Ugbomo opined that when IT tools are used appropriately, it helps to expand access to education, strengthen the relevance of education in the workplace and raises educational quality by creating an active process connected to real life.<sup>16</sup> Thus, appropriate or right use of IT in legal education improves learning and helps to create a web environment suitable for the promotion of information and interactive technology in law faculties/colleges.

### **Barriers/ Challenges to e-learning in law colleges or law faculties in Nigeria**

In a bid to grow the ICT industry in Nigeria, the federal government in 2011 created the Ministry of Communication Technology with the aim of leveraging ICT for national socio-economic development.<sup>17</sup> Up till now, Nigeria could not be said to have advanced much in the area of using IT to improve the standard of legal education in the country. This is as a result of many challenges laced with the sector and Nigeria generally. Some of these challenges or barrier will be discussed below.

One of the major challenges to the effective use of e-learning in Nigeria is the lack of effective wide coverage of internet services in universities of learning across Nigeria. To buttress this, IT experts, stated recently at the launch of Androidone held in August 18, 2015 at Landmark Event

<sup>15</sup> The word VULA means open or gateway. According to ofcom, VULA enables interconnection at local level and supports many services. See the European Commission (Press Release Database)- [europa.eu/rapid/press-release\\_ip-10-654-en.htm](http://europa.eu/rapid/press-release_ip-10-654-en.htm).

<sup>16</sup> Nwosu, O and Ogbomo, E. F. (2012) ICT in Education: A Catalyst for Effective Use of Information. The official publication of the Pacific Northwest library Association PNLQ Quarterly. Retrieved from <http://www.ictineducation.org>: as a catalyst for effective use of information.

<sup>17</sup> The Ministry of Communication Technology, Federal Republic of Nigeria, National Information and Communication Technology (ICT) Policy, 2012.



Centre, Victoria Island, Lagos, that 68% of Nigerians are not connected to internet.<sup>18</sup> Though this is considered as a major problem because without internet coverage, it is absolutely impossible to access online information. However, there are more barriers to the use of IT in enhancing legal education through the use of IT in Nigeria, amongst are:

1. Epileptic supply of power in the country: it is obvious that without electricity or alternative means of power supply, internet cannot work. Instability of power supply in Nigeria has been a challenge not only to the education system but to the IT industry as a whole. Many companies and industries had had to move to other countries due to erratic or epileptic supply of electricity. This is a general and major problem in the country and is killing growth and development of the nation. It is no longer a news that in most of our institutions students take lectures under a very hot atmosphere due to no electricity, with most times no diesel to power the generator. This in a way contributes to poor standard of education in Nigeria. When the learning environment is not conducive, it affects concentration and assimilation level of some students which might lead to difficulties in comprehending and studying well. Sometimes the library is so hot that students would have no choice than to help themselves with hand fans and note books. More importantly, IT tools or equipments such as computers need cooling atmosphere always to work effectively. Therefore, lack of constant power supply is a barrier to the effective use of e-learning in Nigeria and this is affecting the development of IT in law colleges and law faculties.
2. Lack of funding: Funding has always been a major setback in the actualization and realization of the optimal use of ICT in the various law institutions in Nigeria. It is apparent that installation and continuous maintenance of IT facilities would require capital intensive. Presently, each institution is responsible for the funding of her law faculty and every available fund for an institution has to be shared amongst all the faculties. The legal education and judicial institution only get subvention from government which in most cases is not sufficient to fund legal education to standard.
3. Poor maintenance culture: Nigeria is one of the countries with poor maintenance culture. Visit to law institutions in some developed countries dated back to 18s and 19s, are still in good order with learning equipments in use. The situation is different in Nigeria, where recent buildings are already cracking and most IT equipments abandoned or not longer in use. Sometimes, power failure or lack of internet services has made students and lecturers alike to abandon the use of these IT equipments. A good example is the e-library of an institution in the South West of the country; hardly do the laptops come up for students to

<sup>18</sup>Opeoluwani Akintayo, 68% of Nigerian population not online – ICT Experts, 2015

<https://dailytimes.ng/68-nigerian-population-not-online-ict-experts/>> accessed 8 February, 2016

effectively use them for research, some of the computers are not working and are not under repairs.

4. Poor service quality of internet: one of the areas of discussion during the ICT sector at 53<sup>19</sup> is how the sector can improve on its service delivery to the citizenry. Many a times, researchers have to be caught up with deadlines due to poor internet service. This is worrisome, poor internet service is a situation that the government has to look into, it is a breach of user agreement when one pays for internet service and is unable to use it due to unstable or poor service.
5. Lack of infrastructures: Most institutions of learning in Nigeria today are marred with dilapidated buildings and abandoned projects. Working IT facilities and infrastructure are lacking, as such, is a setback for effective use of IT tools in law institutions.
6. Inadequacy of technical knowhow: The Nigerian government is making efforts to improve on the technical knowhow of ICT, thus, collaborating with advanced countries to improve ICT utilization in the country.<sup>20</sup> Recently, the National Judicial Council of Nigeria signed an MOU with the Judiciary of Trinidad and Tobago to improve efficiency in handling of law cases.<sup>21</sup> According to the report, the MOU with Nigeria represents a major shift in the Judiciary's approach in the search for ICT solutions for its Courts. This is also to grow the Nigerian Case Management Information System (NCMIS) which will ultimately improve efficiently the work flow, administrative and procedural operations in the Nigerian Judiciary. However, this cannot be achieved without quality technical knowhow in the operations of IT in the relevant field. Even though Nigeria can be said to have achieved progress in the area of ICT, however, with 68% of her population not having access to the internet is a setback towards achieving optimal IT productivity. From the survey carried out by Oyenike Adeosun to determine teachers' knowledge, experience and practices in use of ICT at the basic education level, findings show that there are many lacked IT skilled teachers.<sup>22</sup> It is not a surprise that many law lecturers and

<sup>19</sup> Emma Okonji, ICT sector at 53: Tremendous Growth, Poor Services <http://www.thisdaylive.com/articles/ict-sector-at-53-tremendous-growth-poor-services/160371/> retrieved 8 February 2016.

<sup>20</sup> Shehu Muhammad Jabake & Na-Allah Magana Danbaba, Barriers to ICT Utilization in Basic Education in Nigeria <[http://www.academia.edu/8520689/BARRIERS\\_TO\\_ICT\\_UTILIZATION\\_IN\\_BASIC\\_EDUCATION\\_IN\\_NIGERIA](http://www.academia.edu/8520689/BARRIERS_TO_ICT_UTILIZATION_IN_BASIC_EDUCATION_IN_NIGERIA)> accessed 8 February 2016.

<sup>21</sup> Trinidad and Tobago's Chief Justice joins CARICOM Chief Justices in signing a MOU with the Supreme Court of Nigeria and NCSC for a new CMIS., Media release, Thursday 4 February 2016 by the JUDICIARY OF TRINIDAD & TOBAGO DEPARTMENT OF COURT ADMINISTRATION COURT PROTOCOL AND INFORMATION UNIT Pembroke Court 17-19 Pembroke Street Port of Spain Trinidad & Tobago.

<sup>22</sup> Adeosun, O. (2010). Quality basic education development in Nigeria: Imperative for use of ICT. *Journal of International Cooperation in education*, 13(2), 193-211.

students are still struggling with the application of IT tools in teaching in law institutions due to lack in IT knowledge. To therefore develop a vibrant IT sector in the country to boost e-learning there is need to improve and increase the number of technical knowhow of both the students and teachers.

7. Lack or Non-working IT tools/facilities: Many institutions of learning including law colleges and offices have no or non-working computers, telecoms for communicating across the institution, scanners, photocopiers to aid learning and communication processes.

### **Lessons from other IT advanced jurisdictions in Legal Education**

Finland, Singapore, Sweden, the Netherlands, Norway, Switzerland, United State, Hong Kong SAR, United Kingdom and Republic of Korea rank the first 10 advanced countries in IT.<sup>23</sup>

In the US, to promote the act of e-learning, it took the efforts of four collaborators to convince the academic community that it worth investing in e-learning to enable pooling of lessons to the advantage of both creators and users.<sup>24</sup> This brought about the Center for Computer-Assisted Legal Instruction (CALI) which has helped to improve the act of e-learning in legal education in America. This achievement in the US legal education prompted the United Kingdom to form the British and Irish legal education association (BILETA) in 1985 in order to also promote legal informatics and information law through e-learning.<sup>25</sup>

Hence, the establishment of the national Law Technology Center (LTC) in the United Kingdom to collaborate with the BILETA, which subsequently became incorporated in the UK center for legal education<sup>26</sup> and in the law curriculum for students. Due to the fast growing of the Internet in the UK many Law schools and Law faculties are moving their education and training into the web environment.<sup>27</sup> This is to enable a more integrated approach of using the technologies in legal education and to help law teachers assemble, store and (re) use materials for learning the law.<sup>28</sup> This has created a wide range of variety of web-based teaching and learning in most law institutions in the UK.

<sup>23</sup> Robert Crotti, Ten top countries for embracing IT, 2014 <<http://www.weforum.org/agenda/2014/04/top-10-countries-embracing-information-technology/>> accessed 9 February 2016.

<sup>24</sup> Paliwala, A. (Ed.). (2010). *A history of legal informatics* (Vol. 9). Universidad de Zaragoza.

<sup>25</sup> Ibid, pg 17. See also [www.bileta.ac.uk](http://www.bileta.ac.uk).

<sup>26</sup> Ibid. see also [www.ukcle.ac.uk](http://www.ukcle.ac.uk).

<sup>27</sup> Through a Screen, Darkly: Electronic Legal Education in Europe

<sup>28</sup> Ibid.

In addition, Norway, Denmark and Sweden are among the most advanced countries in Information Technology in promoting legal education.<sup>29</sup> In the year 2000, Norway instituted a national ICT policy in basic five sectors, in Education, in the government, Norwegian industries, Individual Culture, and the environment, and Norway workforce.<sup>30</sup> This is because the Norwegian government recognizes IT as agent of change and priority in accessing information.<sup>31</sup> To therefore promote e-learning, Norway includes in her National ICT policy the following for the benefit of quality legal education.

- ❖ Establish national learning network among educational institutions in Norway
- ❖ Promote network-based educational programs at all levels.
- ❖ Implement reward system for ICT educational institutions
- ❖ Expand environmental awareness via internet among Norwegians
- ❖ Develop/Promote ICT skill-sets among educators
- ❖ Develop public-private partnerships in the uses of ICT<sup>32</sup>

In the case of Denmark, interest in improving access to law information informed her investigation into electronic data processing of information in the 1970s.<sup>33</sup> The outcome of the research brought about the development of legal database,<sup>34</sup> which has become a good source of information on general laws and regulations and useful to law students in accessing law information in the country. Sweden on its part began the evolution into online legal database in the 1970s with the aim to efficiently share legal information between governments and legal departments; this has equally encouraged research in the area of e-learning to promote legal education in the country.

The above is just to encourage Nigerian government to improve efforts in investing in legal education through promoting research in and funding ICT.

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<sup>29</sup> A recent study measuring the ability of fifty-five countries to access and absorb information and information technology ranked Denmark, Norway, and Sweden 1<sup>st</sup>, 9<sup>th</sup> and 2<sup>nd</sup> respectively. A summary of this study, the IDC/World Times Information Society Index, can be found at [http://www.idc.com/getdoc.jsp?containerId=pr2004\\_10\\_28\\_164010](http://www.idc.com/getdoc.jsp?containerId=pr2004_10_28_164010).

<sup>30</sup>Norway- National ICT Policy< [www1.american.edu/.../Norway%20National%20Tech%20Policies](http://www1.american.edu/.../Norway%20National%20Tech%20Policies).> accessed 17 February 2016.

<sup>31</sup>Ibid.

<sup>32</sup>Ibid.

<sup>33</sup>Thorpe, S. (2001). Online Legal Information in Denmark, Norway, and Sweden. *Int'l J. Legal Info.*, 29, 25.

<sup>34</sup>Ibid.

### Practical steps to improving legal education through IT tools in Nigeria

1. The above experiences of advanced countries in IT show that the Nigerian government to improve e-learning needs to encourage collaborations with top IT schools in advanced countries, invest and promote research in the field of IT to enhance legal education in the country.
2. Legislation: No doubt, technology has become an important factor in today's all rounds development and more importantly is a prerequisite for effective and efficient legal education. The need for the government to ensure strict regulations which should include adequate security and privacy of users and IT policies that will promote IT quality service delivery to her citizenry has become necessary. This would increase the level of productivity and improvement on the general standard of education in Nigeria as well as the empowerment of the educational sector in Nigeria.
3. Collaboration of computer studies and law to form a national professional association with the aim to promote effective and efficient e-learning in legal education and to sustain wider outreach of information through e-learning is strongly advised.
4. Capacity building/ infrastructure: To overcome limited access of internet in our institutions of learning requires capacity building. This would bring about wider coverage of internet service, usage and exploitation of IT tools in Nigeria. In doing this, recourse should be made to the rural parts of the country where access is largely limited. In addition, demands should be placed on the Nigerian government by the Ministry of Education and Council of Legal Studies to provide adequate facilities i.e infrastructures necessary for the promotion of ICT and its use at all levels of education.
5. Funding: The cost of accessing internet in Nigeria is on the high side due to the fact that most people individually pay to access the internet. To fully utilize the potentials of the internet in law faculties and colleges would require adequate funding. The Nigerian government needs to invest and prioritize funding e-learning through budgeting and accountability.
6. Improve Service delivery: Improving IT service delivery in law faculties is essential to promoting digital environment and enhancing e-learning capacity of legal education.
7. Increase literacy level of IT in law institutions: Is very unlikely to promote what you don't have knowledge of. As such, law teachers/ students alike need to be versed in the right use of IT tools to enhance legal education. This may take the form of initiating a National Education Technology Plan (NETP)<sup>35</sup> just like Liberia is proposing to integrate effective technology in law schools and to prepare law students for the challenges of the 21<sup>st</sup> century. Thus, raising awareness level through this medium will aid the promotion of e-learning in legal education. It may also take the form of

<sup>35</sup> NETP is a vision for technology to support active learning and use of information technology in education towards ensuring equity of access to technology.



including IT law into the legal education curriculum as seen in some jurisdictions in the IT advanced countries.

8. Provision of more working IT tools/facilities such as internet, telephone, database, photocopiers, intercoms, scanners, computers in all institutions of learning in Nigeria. No doubts ICT tools or facilities enhance active learning as well as it encourages collaborative and interactive learning, creative learning and integrative approach to learning environment.<sup>36</sup>
9. Managing Learning Environment (MLE): This is in use in law faculties in the UK. What MLE does is it creates a web environment which provides for more integrated approach to learning using technologies in legal education. More importantly, it provides students with an environment in which they can manage legal information and legal knowledge for their personal professional use. Law faculties or colleges in Nigeria could adopt this system to boost the learning environment as well.

### Conclusion

Phenomenally, IT has globally changed and increased the scope of learning through innovations and continuous research. This has contributed to development of legal education landscape research methodology in law institutions across the clime. Though the Nigerian government is making all efforts to develop the IT industry to be able to stand at par with other IT industries in the developed world, yet, there is still room for improvement. Even with the World Bankin 2009 <sup>37</sup>pledge of the sum of N300 million to Nigeria in 2009, to further strengthen the ICT industry and the entertainment industry. Notwithstanding, Nigeria cannot be said to have advanced so much in the right use of IT tools in the country. According to Law, Pelgrum and Plomp, acquisition of ICT skills include the ability to become lifelong learners within a context of collaborative inquiry and the ability to work and learn from experts and peers in a connected global community.<sup>38</sup> This asserts that ICTis essential in facilitating exchange and absorption of knowledge in the world today only if the government can realize it importance to enhancing the standard of education and invest so much in it. It therefore becomes pressing and needful for the Nigerian government to work on the policy framework of improving the quality of legal education in the country by taking into consideration the challenges and practical steps to overcoming them.This is because legal educationcut across all aspects of life and is relevant and necessary in understanding law in its economic, social, political and scientific context which is necessary to sustaining the nation.

<sup>36</sup>Oyovwe-Tinuoye, G., &Adogbeji, B. O. (2013). Information communication technologies (ICT) as an enhancing tool in quality education for transformation of individual and the nation. *International Journal of Academic Research in Business and Social Sciences*, 3(4), 21.

<sup>37</sup>Opara, S., &Ituen, I. (2009). Nigeria's ICT sector: Growth, gains and challenges. *Punch Newspaper*.

<sup>38</sup> Law, N., Pelgrum, W. J., &Plomp, T. (2008). *Pedagogy and ICT Use in Schools around the World: Findings from the IEA SITES 2006 Study*. Hong Kong: Springer.

**ADMISSIBILITY OF ELECTRONIC EVIDENCE UNDER NIGERIA'S  
EVIDENCE ACT: A MILESTONE OR STUMBLING BLOCK TO  
EFFECTIVE ADMINISTRATION OF JUSTICE?**

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*Abstract*

*It is both commonsensical and statutorily codified that a person who makes an assertion or allegation of a fact must prove same. In proving such assertion, therefore, that person is duty bound to produce evidence to substantiate his claims. The same applies to matters before the court, hence the enactment of the Evidence Act to determine and regulate how evidence should be produced and what types of evidence will be admitted by the court. The evidence can either be viva voce (oral) or documentary. By section 258 (a)-(d) of the extant Evidence Act, document includes books, photographs, any disc, tape, sound track, or any device by means of which information is recorded, stored or retrievable including computer output, among others. It is worthy of note that the old Evidence Act which was repealed just as recent as 2011 had been in use for about 65 years, having been enacted and in force since 1945. In fact, as at the time of its repeal, some of its provisions had become otiose and inadequate. One of such instances is the absence of a provision that recognizes computer-generated document or evidence. Fortunately, the amended Act in 2011 brought about the improvement by introducing a new section 84 which provision now recognizes the need for admissibility of statements in documents produced by computers, otherwise known as electronic evidence. This paper shall consider the practicability of the new provision(s), as well as its inherent challenges, in the light of modern realities in the Nigerian courts.*

**Keywords:** Document, Electronic Evidence, Admissibility, Court.

## 1.0 INTRODUCTION

Reducing delay, improving the economy, efficiency and effectiveness and the general objective of promoting confidence in justice system through the use of new technologies are laudable aims and are unlikely to generate much dissension. However, given the nature and importance of the judiciary as the third pillar of the State authority, and compared to other public services, due



process, impartiality and independence should also be carefully taken into account. This is especially so when structural and procedural changes, such as the one driven by the introduction of the new technologies, take place (Loveday, 2000, p. 23).

Almost every aspect of business is contingent on electronic communications and transactions are settled, recorded and reported on complex computer technology platforms. The use of computers and other forms of electronic storage and communication systems has risen sharply in commercial and financial transactions in Nigeria (**Ajomale, 1990**). Modern business has moved from paper and book keeping into an electronically recorded system which is capable of taking in a lot of information without taking much space and time. Electronic evidence is very important in commercial transactions especially in the banking sector. All the banking operations in Nigeria are now fully computerized and the use of Automated Teller Machine (ATM) is common place (Amupitan, 2013, p. 69).

The advent of computer, for instance, brought with it new forms of record keeping in software-microfilms, microchips, diskettes, flash discs etc. that are not by any means within the former understanding of the word “document” which was a written matter on a surface. The simplistic division of documents into originals and copies has also been made unrealistic with respect to several materials used in information, transmission and storage. For instance, when information recorded or stored in the memory of a computer is printed out on paper, it is not easy to say that the version in the memory is a document. Nor is it easy to assert that the print out is an original or a copy (Chukwuemerie, 2006, p. 178).

Not until recently, Nigeria’s Evidence Act did not recognize any computer generated document as either primary or secondary evidence in court, the position which was contrary to the practice in many countries, such as United States, South Africa and others which have recognized the indispensability and ubiquity of computer technology and made computer generated documents admissible under their rules of evidence (Ali, 2010, p.67). For example in South Africa, the computer Evidence Act of 1983 was passed to allow e-evidence in civil cases only, but same was found to be ineffective, and this paved way for Electronic Communications Act 2002 to cover e-evidence in both civil and criminal cases (Watney, 2009, p.3).

Sequel to this, “the inestimable benefits of the various advancements in information and communication technology (hereinafter referred to as “ICT”) have until the enactment of the new Evidence Act in 2011 remained a matter of much debate and judicial uncertainty. Tendering of electronic mails (“e-mails”), for example, are usually as contentious as the litigation itself, with opposing party usually relying on the hearsay rule, among other forms of objections under the old Evidence Act 1945, to prevent the admission of such electronically generated evidence. The reason is not far-fetched. In the 1945 Evidence Act which is now repealed, technologically generated evidence was argued to offend some of the following general rules of evidence, namely, the issue of the custody and the reliability of the evidence tendered, if it is not the original document; the best evidence rule which requires that a party must produce the original

document during a trial or where the original document is not available, secondary evidence of it in the form of a copy, with other corroborating notes, etc, must be produced; the rule against the admission of hearsay evidence which forbids witnesses giving evidence on facts that they do not directly or personally witness or know about, etc. (Oserogho & Associates, 2012, accessed on 24-11-2015).

Essentially, this paper seeks to examine the general nature of the Nigerian law of evidence with particular interest on the admissibility of electronic evidence, as newly provided for in the new evidence Act, the issues therein, challenges and options.

## **2.0. DEFINITION AND IMPORTANCE OF EVIDENCE**

### **2.1. Definition**

Evidence is the means by which the facts are proved, but excluding inferences and arguments. It is a common knowledge that a fact can be proved by oral testimony of persons who perceived the fact, or by the production of documents, or by the inspection of things or places. All these come within the meaning of judicial evidence. From a very broad view it is sometimes permissible to include in this list such other means of proving a fact like admissions and confessions, judicial notice, presumptions and estoppels (Aguda, 1999, p.3).

The law of evidence encompasses rather broader functions. It includes rules regulating the means by which facts may be proved to the satisfaction of the court; it allocates burdens of proof between the parties, and it prescribes the standard of proof which a court must require before it can make a finding on a given issue. The law of evidence also prescribes the relative functions of judge and jury in respect of the receipt and evaluation of evidence (Hirst, 2001, p. 1). Evidence is something (including testimony, documents and tangible objects) that tends to prove or disprove the existence of an alleged fact. It is also the body of law regulating the admissibility of what is offered as proof into the record of a legal proceeding (Black's Law Dictionary, p. 635).

In *Kolo v Lawan (2011) ALL FWLR (Pt. 597) 725*, the Court of Appeal defined evidence as any type of proof or probative matter legally presented at the trial of an issue, by the act of the parties, and through the medium of witnesses, records, documents, exhibits, concrete objects etc., for the purpose of inducing belief in the mind of the court or jury as to their contentions.

### **2.2. Importance/Relevance of Law of Evidence**

In any judicial proceeding, the importance of evidence cannot be over emphasized. According to a learned author, it is altruistic to state that proof by evidence forms the fulcrum of all judicial proceedings, especially where issues of fact are raised or relied upon. The reality is that Judges, Jurors or Judicial Officers before whom those matters come up for adjudication are not super-humans, neither are they magicians who could just look at the faces of litigants and pronounce their judgments; rather they (Judges, Jurors or Judicial officers) merely act on facts as are

presented to them or are adduced in evidence before them by the disputants (Hon, 2012, p. 3). This undisputable position has been given judicial flavor in the case of *Neka B.B.B. Manufacturing Co. Ltd V A.C.B. Limited (2004) All FWLR (Pt. 198) 1175 @ 1191* when His Lordship, Pats Acholonu, J.S.C. (as he then was) held among others that “neither the pleadings nor the most forensic eloquence of any brilliant lawyer can be a substitute for evidence... Evidence whether oral or documentary consists of facts, and facts are the fountainhead of law.”

Flowing from the above, it suffice to say that evidence is the bedrock of any proceeding in court, as same determines and dictates the pendulum upon which the hand of justice swings. This is because, in law, cases are determined on the basis of the evidence led and each case must, therefore, be determined in accordance with its peculiar facts as disclosed in the evidence put forward by the parties (See *Ukaegbu v Nwololo (2009) All FWLR (Pt. 466) 1852 S.C.*).

### **3.0.HISTORY AND SOURCES OF THE NIGERIAN LAW OF EVIDENCE**

#### **3.1. History of the Nigerian Law of Evidence**

Before elucidating the current basis of the law of evidence in Nigeria, it is imperative to take a look at the position prior to independence. Before the establishment of the British courts, the courts in Nigeria were mainly customary courts (Aguda, 1999, p. 3-4), and as such, the rules of evidence in the customary courts were the applicable customary rules. To a large extent, those rules are still applicable in those courts today, depending on the area or region in question, but that is not the focus of this paper. Of utmost importance to this piece of work is the rules of evidence applicable in the courts established by the British government as subsequently developed, namely, the Magistrate courts, the High Courts, the Court of Appeal and the Supreme Court.

Up to the year 1945, the Nigerian law of evidence in the courts just mentioned was the English common law of evidence including rules of evidence contained in applicable English statutes, as there was no local legislation dealing with the matter. On June 1, 1945, the Evidence Ordinance was brought into operation and has, until the present day, remained almost the same in substance and in form, although it has been amended from time to time.

While the Evidence Act made by the British colonial government in 1945 continued in operation as the only source of the Law of Evidence in the country, it was later enacted into law in 1990, then re-packaged as Cap. E14, LFN 2004. An Evidence Bill prepared, even belatedly, in 1998 has failed to be enacted into law by the successive governments that have ruled the country ever since); developments in such areas as information technology have gone way beyond what that statute could have envisaged at its enactment (Chukwuemerie, 2006, p.178). As rightly observed by a learned author, “save

for law making in the political sphere where the politicians (who populate the legislative and executive arms of government) dutifully watch over their interests and, lately, in areas of economic reform such as the concerted legal war against corruption, statutory law in Nigeria has hardly kept pace with social realities. This is despite the fact that between such realities and the law there should ordinarily be a mutual beneficial interpretation. This has ensured that in some important areas of life and business statutory law has remained in yesterday while the society marched on in dynamism. (Chukwuemerie, 2006, p.177).

Sequel to the above assertion, the Evidence Act enacted into law in 1945 became otiose and inadequate, in that, same could not be relied upon in proving cases in this contemporary era due to its several anachronistic provisions, particularly, its non-recognition of modern documentary evidence like computer generated print outs, electronic digital messages etc., hence, its repeal and the emergence of Evidence Act, 2011 (See Section 84 of the Evidence Act, 2011).

The question now is, how effective and relevant is the new Evidence Act, especially the provision dealing with electronic evidence vis-à-vis the modern trend in technology? Secondly, how relevant and sufficient is this provision for quick dispensation of justice in dealing with issues arising therefrom by the Nigerian Courts? Attempt to answer this poser will be grossly inadequate without first taking recourse to the sources and classification of evidence under the Nigeria's Evidence Act.

### 3.2 Sources of Nigerian Law of Evidence

It is a common practice in law to consider the root whence any law derives. The case with the Nigerian law of evidence is not an exception. It has been argued that the Nigerian law of evidence traces its root to the following sources, namely, the Nigerian Constitution; the Nigerian Evidence Act; rules of court; Criminal Procedure Code and Criminal Procedure Act; and Common law. Each is being aptly explained hereunder as follows:

- i. **The Nigerian Constitution:** The National Assembly is by Section 4 (2) & (3) of the 1999 Constitution of the Federal Republic of Nigeria empowered to make laws for the peace, order and good government of the Federation or any part thereof with respect to any matter included in the Exclusive Legislative List set out in Part 1 of the second schedule to the Constitution. Also, item 23 in the Second Schedule to the Nigerian Constitution provides for evidence as one of the items within the Exclusive Legislative List.
- ii. **The Evidence Act:** This, without doubt, constitutes the main source of the Nigerian law of evidence. The Act covers a wide range of matter like relevance and admissibility of a piece of evidence, presumptions recognized by law, admissions, confessions,

corroboration, privilege, judicial notice, estoppels, affidavit evidence, hearsay evidence, similar fact evidence, character evidence, opinion evidence, burden of proof, documentary evidence, competence and compellability of a witness etc.

However, despite the provisions of the bulk of the rules of evidence applicable in Nigerian courts in the Act, it does not pretend to be an exhaustive legislation, as it evidently does not cover the whole field of the law of evidence. The Act frankly admits limitation and in-exhaustiveness in Section 5A which states that “nothing in this Act shall prejudice the admissibility of any evidence which would apart from the provision of this Act be admissible”. This, in essence, makes room for admission of evidence under any other statutory enactment, both under the current laws applicable in Nigeria and those that existed prior to the existence of the Act.

iii. **Rules of Court:** The rules are made by the heads of the various courts as empowered by the Constitution. Every court has rules that govern the procedure to be adopted in taking any steps in courts. For instance, the new civil procedure rules of courts of most states provide for the frontloading of documents that will be relied on in a trial alongside the statement of claim and defence (See Order 13 rule 1 (1 & 2) Federal High Court Civil Procedure Rules 2004; Order 27 Rule 1 & 2 Kwara State High Court Civil Procedure Rules 2005; Order 3 rule 2(2), Lagos State High Court Civil Procedure Rules 2004, etc). It also provides that all the claims or defence of the parties be included in their pleadings before evidence is led on it, at the trial. Thus, any evidence adduced on a matter not pleaded goes to no issue and the same applies to facts pleaded on which no evidence is led at the trial.

iv. **Criminal Procedure Act (CPA) and Criminal Procedure Code (CPC):** These are the two principal enactments governing criminal procedure in Nigeria. Initially, the CPA enacted in 1945 was of general application throughout the country, but was confined to Southern region upon the attainment of independence on the 1<sup>st</sup> of October, 1960. With the creation of some states from the defunct southern region, the successive states adopted the CPA, though states have amended certain sections of the Act applicable in their territory, nonetheless, the provisions of the principal enactment as they applied in the states are substantially similar.

The Criminal Procedure Code (CPC) was enacted in 1960 to apply to Northern Nigeria. It applies in all states created in the defunct Northern region and the Federal Capital Territory (FCT). Its provisions apply to trials in Magistrate Courts, State High Courts, and the Area Courts.

These two enactments also have their part to play as sources of the Nigerian law of evidence. For instance, Section 287 (1) (a)(iii) of the CPA and Section 236 (1)(a) of the CPC, both provide for the right of an accused person to be silent. Also, Section 186, 194



& 285(3) of the CPA and Section 287 and 230 of CPC are provisions on the procedure for giving evidence in court. (Ali, 2010, p.71-74). But just recently, administration of Criminal justice Act, 2015 was enacted for the administration of criminal justice in the courts of Federal Capital Territory (FCT) and other Federal Courts in Nigeria.

All these sources explained above are by no means exhaustive and conclusive of the sources of the Nigerian law of evidence. That being the case, it is however, important at this juncture to give classification of evidence before delving into what electronic evidence is all about for better elucidation and appreciation of this paper.

#### **4.0 SCOPE AND CLASSIFICATION OF EVIDENCE**

Evidence or judicial evidence has been subjected to several classifications from different perspectives, however, the main division of judicial evidence under the Act is into oral evidence, real evidence and documentary evidence which, by the new Act, now includes computer generated evidence (i.e. electronic evidence). Apart from these, other types of judicial evidence include circumstantial evidence, Direct and hearsay evidence; and primary and secondary evidence, each of which is briefly discussed as follows:

- i. **Oral Evidence:** This is the statement of a witness in court which is offered as evidence of the truth of what is stated. It includes statements and assertions of a witness in court offered as proof of the truth of that which is asserted. It is also usually referred to as testimonial evidence and the most common type of judicial evidence. This, however, does not mean that it is the most credible means of establishing a case in court. The new Evidence Act (i.e. 2011 Act) is emphatic on the importance of oral evidence. Oral evidence is an important class of evidence. Section 125 unambiguously states that “all facts, except the contents of documents, may be proved by oral evidence”.
- ii. **Real Evidence:** This type of evidence entails the production before the court of any material thing including even human beings, which may be ordered by court for inspection, or the court itself may inspect or permit a jury to inspect any movable or immovable property which is in dispute.
- iii. **Documentary Evidence:** This is the statement made in a document which is offered to the court in proof of any fact in issue. Such a statement can be proved only by the production of the document itself (**See Section 96) of the Act**). This is called primary evidence. However, in exceptional circumstances, certified or other copies, counterparts and oral accounts of the contents of the document may be used, and in such circumstance, the evidence given shall be referred to as secondary evidence (Aguda, 1999, p.10).

- iv. **Electronic Evidence:** It is a kind of evidence which deals with the tendering of the output of electronic gadgets or equipment as evidence in court. This will be discussed extensively *infra*.

Other types of evidence include the following:

- v. **Circumstantial Evidence:** This means evidence offered to the court for the purpose of the court inferring therefrom the existence of fact(s) in issue. It is generally in the form of oral evidence. It is usually contrasted with “direct evidence”.
- vi. **Direct Evidence:** This is the evidence that straightforwardly supports the innocence or guilt of a person on trial in a criminal case or of facts in a civil case. It is evidence offered by a witness in proof of the truth of the fact asserted by him. Direct evidence also includes real evidence.
- vii. **Hearsay Evidence:** Generally, statements, written or oral, made by persons who are not called as witnesses are not admissible in evidence but are relevant and admissible in the circumstances.
- viii. **Primary and Secondary Evidence:** This has been defined to mean the best or highest kind of evidence; that which the law regards as affording the greatest certainty of the fact in question. Thus, in respect of documentary evidence, the production of the original document, or proof of an admission of its contents by the party against whom it is tendered, is regarded as primary evidence in this sense (See *Jacob v. A.G. Akwa Ibom State (2002) FWLR (Pt. 86) 578 @ 590*). Also, other species of primary evidence are direct oral evidence and inspection of locus in quo. Secondary evidence can only be better appreciated from the dictum of Lord Asher in *Lucas v Williams (1892)113 at 116* to this effect “primary evidence is evidence which the law requires to be given first; secondary evidence is evidence which may be given in the absence of that better evidence, when a proper explanation of its absence has been given (Hon, 2012 , p.5-6).
- ix. **The Best Evidence Rule:** It is a rule of comparative antiquity emanating from the old rule of English Common Law, which requires that the best evidence in possession of a third party must be given.

## 5.0 NATURE AND SOURCES OF ELECTRONIC EVIDENCE

### 5.1 Nature & Definition Electronic Evidence

Electronic evidence and computer forensics are relatively recent in addition to the means of proof in legal proceedings. Unlike many other forensic disciplines that were introduced into the trial process with little or no legal debate, electronic evidence has sparked considerable and often controversial debates among legal professionals. Different legal systems reacted in different



ways to this new challenge (Mason, 2010. p.21). Some felt the need to introduce new legislation specific to digital evidence. Others tried to establish a “close match” to existing evidentiary concepts and applied the rules by analogy. In some jurisdictions, both strategies were applied. Whatever the approach, it is expedient to identify the nature and sources of this type of evidence (Akhiero, 2013), p.5).

This type of evidence has been variously described in different words such as ‘electronic evidence’, ‘digital evidence’, or ‘computer evidence’. All these terms are used interchangeably, but the word e-evidence has been adopted for the purpose of this work. What then is electronic evidence?

E-evidence also known as digital evidence can be referred to as information stored or transmitted in electronic or digital form which is then sought to be used in evidence which may include emails; instant messaging and histories; phone records and logs; print-outs; spreadsheets; information on social media, facebook, twitter; videos- you tube; digital photographs; DV- you tube; digital photographs; DVDs, CDs; files saved from accounting programs, etc. (Osinbajo, p. 5-6, *accessed on 15-01-2016*). It has also been defined as legal evidence found in computers and digital storage media or evidence scientifically processed using computer technology. It is information in digital format (including electronic records and digital media) used to prove allegations or arguments useable in internal investigation, trial before a tribunal or court and in civil or criminal action. It is also used to establish facts- prove or disprove allegations e.g. creating data on a device, copying data from or to a device, deleting logs or database, establishing consistency or continuity of an action or activity, etc. (Owasanoye, 2015, p. 5).

Having said that, for counsel, the crucial question in knowing what rules to apply is, what type of evidence is the particular e-evidence e.g. is an email before being printed out a document, is a DVD or CD a document, is a posting on facebook documentary?(Osinbajo, p.8,). What then, is a document? Section 258 of Evidence Act 2011 defines document to include “...*any disc, tape, sound track, or other device in which sounds and other data (not being visual images) are embodied so as to be capable of being reproduced. Any film, negative, tape or other device in which one or more visual images are embodied so as to be capable (with or without the aid of some other equipment) of being reproduced from it ....any device by means of which information is recorded , stored or retrievable including computer output.*

The same Section 258 defines computer to mean “any device for storing and processing information, and any reference to information being derived from other information is a reference to its being derived from it by calculation, comparison or any other process”.

## 5.2 Electronic Documents

An important form of evidence in legal proceedings is proof by documents. The Evidence Act of 2011 has taken a cognizance of this radical change in its definition when its definition of document in section 258(1) includes:

- (a) Books, maps, plans, graphs, drawings, photographs and also includes any matter expressed or described upon any substance by means of letters, figures or marks or by more than one of these means; intended to be used or which may be used for the purpose of recording that matter;*
- (b) Any disc, tape, sound track or other device in which sounds or other data (not being visual images) are embodied so as to be capable (with or without the aid of some other equipment) of being reproduced from it; and*
- (c) Any film, negative, tape or other device in which one or more visual images are embodied so as to be capable (with or without the aid of some other equipment) of being reproduced from it.*
- (d) In the case of a document not falling within the said paragraph (c) of which the visual image is embodied in a document falling within that paragraph, a reproduction of that image, whether enlarged or not, and any reference to a copy of the material part of a document shall be construed accordingly.”*

Certainly, the above definition is a significant improvement on the definition of the word ‘document’ as defined in the repealed Evidence Act which confined the meaning of the word ‘document’ in section 2 only to what we now have in section 258 (1)(a), to the exclusion of other definitions. What is so apparent in the said section 2 of the repealed Evidence Act is the fact that the definition was limited to documents in the physical format to the exclusion of documents in digital format. The fate of e-document under the repealed Evidence Act was that such evidence was not admissible in the Nigerian Courts up till the emergence of the new Act.

## 5.3 Sources of Electronic Documents

There are different techniques that are capable of creating evidence in digital format. It is crucial to identify some of these sources before the consideration of the legal machinery for the admissibility of e-evidence. Generally speaking, the computer can be regarded as the primary source of e-evidence. The term ‘computer’ includes a range of gadgets such as mobile phones, various forms of personal digital assistant (PDA), cameras, music players, calculators, meters, ATM machines, traffic lights, car tracking devices etc. All these are computer devices in their own right in as much as they have a CPU, memory, input and output devices, screen they are loaded with operating software. These devices are increasingly being used by individuals and

organizations as part of their IT infrastructure. They are used for storage and processing of e-data. A huge chunk of e-evidence emanate from these sources. Sometimes these computer devices operate to generate e-evidence on standalone basis. For example, a single desktop computer in an office may generate such evidence without any connection to any other system. At other times, more than one computer may operate together to generate the data. Such arrangement is called a network, which may take different forms i.e. internet, intranet. A recent development in the field of networking is the introduction of wireless networking. This form of technology uses radio waves to transmit data. Another wireless technology known as Bluetooth actively connects devices within a short range, using another radio frequency band. All these are some sources of the e-evidence. The sources of e- evidence are being proliferated by the day with modern technological developments (Akhiero, 2013, p.9 -11).

## **6.0 ADMISSIBILITY OF ELECTRONIC E-EVIDENCE**

### **6.1 The Attitude of Court to Electronic Evidence**

Before the enactment of the Evidence Act 2011, there were no express provisions on computer based or electronic evidence or any prescribed rule for their admissibility. However, the court heavily relied on Section 2 of the repealed Evidence Act to justify the extension of documents to computer printout and other electronic devices (Amupitan, 2013, p. 79). The earliest and most commonly referred case on admissibility of e-evidence was the obiter of the Supreme court in the case of *Esso West Africa INC. V. Oyegbola (1969) 1 NMLR 194*, where section 37 of the old Evidence (now section 51 in the new Act) was held not to only apply to books of account. The Court observed that “the law cannot be and is not ignorant of modern business methods and must not shut its eyes to the mysteries of the computer. In modern times, reproductions or inscriptions or ledgers or other documents by mechanical process are common place and section 37 cannot therefore only apply to “books of account” so bound and the pages not easily replaced (See also the case of *YESUFU V ACB (1976) 4SC (Reprint) 1 @ 9-14*, where the court relied on the decision in *Esso West Africa Inc. v Oyegbola (Supra)*. Similarly, in the case of *Trade Bank Plc v Chami (2004) ALL FWLR (Pt. 235) 118*, the Court of Appeal relied on section 38 of the repealed Evidence Act (now section 51 of the Evidence Act 2011) to admit computer printout.

More recently in *Federal Republic of Nigeria (FRN) v Femi Fani-Kayode (2010) 14 NWLR (Pt. 1214) 481*, at the trial of the respondent for money laundering, a certified true copy (CTC) of the computer generated statement of account of the respondent was to be tendered as evidence. The respondent opposed the application on the ground that the computer generated statement of account was inadmissible under section 97 of the Evidence Act. The trial Judge upheld the objection and rejected the statement of account, the Court of Appeal held that the term “banker’s books” include all other books used in the ordinary course of business in the bank and could as well include other methods and devices used to keep records in the bank. Acknowledging this

deficiency, the Court of Appeal, per Rhodes Vivour JCA (as he then was) in *Oghoyone v Oghoyone (2010) ALL FWLR(Pt 543) 1844 @ 1860, Para C*, held inter alia that "... the issue as to the admissibility of computer generated evidence has been the subject of controversy for quite some time now in Nigeria and presently the legislature is working on appropriate amendments to accommodate such evidence".

As rightly observed, the new definition has sufficiently bridged the gap between the digital world (which appears so unfamiliar to the uninitiated) and the physical world (with all the familiar trappings of paper documentation). The present legislation has introduced the legal profession to the reality of the current regime of e-data management (Akhiero, 2013, p.9).

Basically, Section 84 of the Act makes copious and elaborate provisions for the admissibility of electronically generated evidence, the section states that:

84 “ (1) In any proceedings a statement contained in a document produced by a computer shall be admissible as evidence of any fact stated in it of which direct oral evidence would be admissible, if it is shown that the conditions in subsection (2) of this section are satisfied in relation to the statement and computer in question.

(2) the conditions referred to in subsection (1) of this section are-

(a) that the document containing the statement was produced by the computer during a period over which the computer was used regularly to store or process information for the purposes of any activities regularly carried on over that period, whether for profit or not, by anybody, whether corporate or not, or by any individual;

(b) that over that period there was regularly supplied to the computer in the ordinary course of those activities information of the kind contained in the statement or of the kind from which the information so contained is derived;

(c) that throughout the material part of that period the computer was operating properly, or, if not, that in any respect in which it was not operating properly or was out of operation during that part of that period was not such as to affect the production of the document or the accuracy of its contents; and

(d) that the information contained in the statement reproduces or is derived from information supplied to the computer in the ordinary course of those activities.

(3) Where over a period the function of storing or processing information for the purposes of any activities regularly carried on over that period as mentioned in subsection (2) (a) of this section was performed by computer, whether-

- (a) by a combination of computers operating over that period;
- (b) by different computers operating in succession over that period;
- (c) by different combinations of computers operating in succession over that period; or
- (d) in any other manner involving the successive operation over that period, in whatever order, of one or more computers and one or more combinations of computers.

All the computers used for that purpose during that period shall be treated for the purposes of this section as constituting a single computer; and references in this section to a computer shall be construed accordingly.

(4) in any proceeding where it is desired to give a statement in evidence by virtue of this section, a certificate-

(a) identifying the document containing the statement and describing the manner in which it was produced;

(b) giving such particulars of any device involved in the production of that document as may be appropriate for the purpose of showing that the document was produced by a computer;

(c) dealing with any of the matters to which the conditions mentioned in subsection (2) above related, and purporting to be signed by a person occupying a responsible position in relation to the operation of the relevant device or the management of the relevant activities, as the case may be,

Shall be evidence of the matter stated in the certificate; and for the purpose of this subsection it shall be sufficient for a matter to be stated to the best of the knowledge and belief of the persons stating it.

(5) for the purposes of this section-

(a) information shall be taken to be supplied to a computer if it is supplied to it in any appropriate form and whether it is supplied directly or (with or without human intervention) by means of any appropriate equipment;

(b) where, in the course of activities carried on by any individual or body, information is supplied with a view to its being stored or processed for the purposes of those activities by a computer operated otherwise than in the course of those activities, that information,



if dully supplied to that computer, shall be taken to be supplied to it in the course of those activities;

(c) a document shall be taken to have been produced by a computer whether it was produced by it directly or (with or without human intervention) by means of any appropriate equipment”.

It is crystal clear that the provision is voluminous and cannot be easily digested, and as such, the entire condition for the admissibility of e-document in that section has been succinctly simplified and summarized as follows:

- i. “That the computer is in **regular use** for storage or processing of information with regard to activity in question,
- ii. That the computer was **operating properly** or if temporarily out of service, that condition did not affect production and accuracy of content of computer,
- iii. That information tendered as evidence is **derived from** information supplied to the computer,
- iv. That information stored or processed by single, combination or network of computers will be treated as information derived from a single computer,
- v. That information may be supplied to computer directly or indirectly with or without human intervention,
- vi. That the transferred or processed information moving from another computer (e.g. handheld device) to the main storage computer is admissible so long as it is supplied in **appropriate** form {Sec. 84 (5)}.
- vii. That information produced or processed with or without human intervention is admissible
- viii. That **a certificate must be produced, signed by a person responsible** for management of the activities for which the computer is used.
- ix. That certificate must describe manner in which **document was produced and provide particulars of device** involved in its production;
- x. That it is sufficient if certificate states that it is to the best knowledge and belief of person issuing it (Owasanoye, 2015, accessed on 12- 02-2016)”.

Notwithstanding the voluminous nature of the position, it has been rightly observed that “the new Evidence Act has to be commended for removing the first problem of admissibility associated with computer generated evidence making it admissible in both civil and criminal proceedings. Documents produced by a computer are now admissible under the provision as evidence of any fact stated therein of which direct oral evidence would be admissible (Amupitan, 2013, p.89-90)”.

## **6.2 Challenges of Admissibility of Electronic Evidence in Nigerian Courts.**

There appears to be a dearth of cases on e-evidence in Nigeria since the coming to force of the new Act. The case of *Kubor v Dickson (2013) 4 NWLR 427 SC*, appears to be the first testing ground for the new Act. The documents in that case were two printouts from the website of an online newspaper. The Supreme Court, per Onnoghen, J.S.C. held that the documents were inadmissible for failure to satisfy the four conditions stated under section 84(2) of the new Act. This case appears to be the locus classicus on the admissibility of e-evidence for now but it presents fresh dilemma as it ignores role of technology and impact of e- governance e.g. INEC website, etc. the decision implies that electronic alerts and e-mails of bank transactions have no value without certification (Owasanoye, 2015, p.31).

Recently, allowing the appeal of the appellant, the Supreme Court in *Wike Nyesom V Dakuku Peterside & Ors (2015) LPELR-SC1002/2015*, disagreed with the Tribunal and Court of Appeal that the use of the card reader (an electronic means) was complementary to the use of the voters register and intended to strengthen the application and efficacy of the Electoral Act, by ensuring a credible election in Nigeria when it held that the usage of card reader would “dethrone” and ‘depose’ the voter register. This position, with due respect, portrays the court to be taking a step forward and two steps backward towards the on adoption of ICT and admissibility of e-evidence in Nigeria.

The rationale behind the conditions in Section 84 of the Act, is to have some checks and balances in place to ascertain the history of how the data have been managed, which leads to the assertion that the data have not been modified, altered, replaced or corrupted and must therefore be genuine (Akhiero, 2013, p.23).

Issues arising from this provision can be categorized into various ways, but the writer has chosen to examine same in two ways, namely scientific and legal issues. The scientific issues shall be considered first and same has been cursorily highlighted as follows:

- The requirement that information tendered as evidence is derived from information supplied to the computer may likely generate an issue in that, in a global network of computers, each transmission from one to other may be modified, thus the notion of “derived from” must be carefully considered.



- Furthermore, the issue of whether information moving from one computer to another in appropriate form as required under Section 84(5) is software driven and not human determined, e.g. data sharing via network; cloud; same wifi; devices of one registered user, etc.
- The provision is silent on the appropriate designated person(s) responsible for the purpose of signing certificate- is it Network Administrator; IT Manager, Supervising Officer; Data Processor; HOD or just any designated officer within an organization? And if this is satisfied, what particulars of device are to be included in the certificate particulars- hardware or software details, model description? (Owasanoye, 2015, p.29).

### **Legal Issues**

- The section assumes that computer evidence will be from a computer within a jurisdiction of court. In today's world of global corporations and businesses , this assumption is forlorn (Owasanoye, 2015, p.28);
- The proof that a computer is operating properly may not always require expert evidence as stipulated in Sec. 68 (1) E.A. 2011.
- Going by the provision of section 1 of the new Act, what is the relevance to be attached to such evidence, was it properly obtained, can such evidence be categorized as hearsay or direct evidence, would such document be regarded as a photocopy or original and, what weight is to be attached to it going by section 39 of the new Act?
- The concluding phrase of Section 84 (4) states that ...”for the purpose of this subsection it shall be sufficient for a matter to be stated to the best of the knowledge and belief of the person stating it”. The quality of the certificate issued is whittled down, as the phrase permits all kinds of quacks and mediocres to issue certificates to the best of their knowledge and belief. Simply put, it permits every tom, dick and harry to issue such certificate, the position which is not a good practice.
- The whole of section 84 has to be interpreted conjunctively, hence, failure to satisfy any of the condition would be tantamount to rejection of such evidence sought to be tendered. This, in the opinion of the writer, makes the section very tedious and laborious.

## **7.0 RECOMMENDATION AND CONCLUSION**

We live in an age where transactions are conducted on the electronic platform. The digital technology has compressed the world into a global village. The masses have embraced information technology. The use of electronic devices like GSM mobile phones is no longer the preserve of the elites or the wealthy. The volume of electronic data is on the increase. Most of

these transactions are captured by electronic devices. In the event of dispute, parties are bound to rely on electronic evidence. In essence, e-evidence has come to stay. Hence, the law must be made in such a way that it will pace or run *pari passu* with the reality on ground.

Ordinarily, it appears that section 84 of the Evidence Act 2011 seeks to guard against manipulation of computer generated document, but complying with the procedure and rules can be a herculean task for parties or witnesses who intend to tender such document. As rightly observed by a learned author, the rule of admissibility of electronically generated evidence is very complex (Amupitan, 2013, p.96), and therefore, it will not be incorrect to say that the provision is too strict and does not reflect the seriousness and readiness of Nigeria to face the reality of modern times. Hence, the Nigerian courts are enjoined to adopt liberal interpretation of the section.

Furthermore, if the nation must win the battle against corruption and other social vices like terrorism, kidnapping, etc, which have eaten deep into every facet of the nation's affairs, it must be ready to face the battle with a sharpened weapon. One of the strong machinery to fight this menace is to have an effective, unambiguous and relaxed legal framework on the admissibility of e-evidence. It is a known fact today, that almost all the wealth of this nation is being stolen electronically. Huge amounts are being electronically transferred to foreign accounts by corrupt leaders. To this effect, the law has to be virile and strong in such a way that no one should be able to defeat the nation in its battle against corruption on technical ground, by hiding under the *lacuna* in our laws relating to admissibility of e-evidence. Therefore the Evidence Act must not be couched in a way that it will look like pouring a new wine into an old bottle.

A holistic perusal of the Act shows that the procedure for the admissibility of electronic document in court is not impossible, but practically difficult and does not justify the true reflection of a legal framework which has embraced the adoption of ICT in full blown, thus, bringing the position of the writer of this work to believe that the said provision is just a cosmetic provision on e-evidence.

The issue of admissibility of e-document remains a very technical subject. As rightly observed, the Evidence Act 2011 continues with this tradition by failing to simplify the evidence rules for both legal practitioners and non- legal practitioners, to easily read and understand the provisions of this law (Oserogho & Associates, 2012, Accessed on 12-2-2016). Therefore, the provision should be more simplified.

Ordinarily, the new Evidence Act seeks to guard against manipulation of e-document, but complying with the procedure and rules stated in Sec. 84 can be an herculean task for parties or witnesses who seek to tender such document. The fact must be said that the requirements for its admissibility are too strict and burdensome.

Where the court is to rely on a mere certificate to lay foundation for the admissibility of e-evidence, the certificate should be issued by an expert. This will be concomitant with the usual trend of such certificates under the Act. (See for example section 68 to 71 of the Act). Issue of designated person(s) responsible for the purpose of signing and the particular of device to be included on the certificate which is at large should also be resolved before parties begin to use same as a cover up, by raising unnecessary objections.

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**VIRTUAL LAW PRACTICE IN NIGERIA: ETHICAL CHALLENGES  
AND PROSPECTS**

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**Abstract**

**Information and Communication Technologies (ICTs) have changed the way law firms procure, communicate and render services to clients. The new trend of legal service delivery employing the internet is termed e-Lawyering or virtual law practice. This involves delivery of legal services online, such as utilizing secured client portals and using web-enabled document automation and interactive advisory applications. The law firms in Nigeria are yet to employ the full potentials of information technology in both law firm management and delivery of legal services. One of the limiting factors is the existing rules of professional conduct for legal practitioners 2007 which is not in line with global trends on legal service delivery. Therefore, adopting the doctrinal legal**

research methodology, combined with legal context analysis, this paper explores the prospects of new trends of managing law firms and legal service delivery. In doing this, the ethical challenges facing law firms in Nigeria in adopting technological approach to law firm management and legal service delivery are analysed. It concludes by proposing review of the *Rules of Professional Conduct 2007* so as to allow law firms in Nigeria maximise the potentials of information and communication technologies in rendering legal services to their clients, in this technological age where there is now moves towards emergence of lawyers without border.

**Keywords:** e-lawyering; virtual law practice; legal service; outsourcing; litigation support tools; rules of professional conduct; attorney–client relationship.

## I. INTRODUCTION

The legal profession is slow in keeping pace with the digital revolution. This is not far from the fact that legal profession is a profession that is resistant to change. (Lodder & Oskamp, 2006) Traditionally, legal profession depends on precedent, looking backwards to see the way things were done in the past to solve the present problem. It was almost unthinkable in the past to moot the idea of altering the ways and manners lawyers deliver their services. However, with the evolution of the electronic service delivery in both private and public sectors, it has become inevitable for the legal professional to adopt Technology in the legal service delivery (Lodder & Oskamp, 2006).

Legal professionals have begun to employ Technology in the legal practice. Information and Communication Technologies (ICTs) have improved the way lawyers procure, communicate and render services to clients. The adoption of the Technology in the legal profession has prompted new models of legal practice. These models are still emerging. Prominent of them however is “virtual law practice” (Williams, Platt & Lee, 2015). With this model, prospective clients now go online in search for affordable legal services. Recent studies on legal markets shows that majority of clients now prefer to deal with law firms online (Williams, 2013). Virtual law practice thus provides a means for the legal profession to respond to the changing client base that now prefers online legal services.

Significantly, virtual law practice or e-lawyering is accessible to both the client and the attorney anywhere the parties may access the internet. It has developed to become a new trend of legal practice in the modern world. It is now on the rise as legal practitioners increasingly embrace the model in the provision of their legal services (Granat & Kimbro, 2012).

Historically, although the genesis of virtual law practice can be traced to Woolley & Co. in England in 1996, the practice started gaining ground as a model after the firm Axiom was founded in 2000 in the United States. Consequently, the professional bodies in most of the advanced jurisdictions have started responding by updating their rules of professional conduct in line with the new trends



of online delivery of legal service. The North Carolina State Bar is one of the first State Bars to publish opinion that specifically allows for the online delivery of legal services (Kimbrow, 2010).

The legal professionals in Nigeria is lagging behind in employing the full potentials of information technologies through provision of online delivery of legal services (Owoeye, 2011). It is observed that one of the limiting factors to virtual law practice or e-lawyering in the country is the existing rules of professional conduct which is not in line with the global trends on legal service delivery. Therefore, adopting the doctrinal legal research methodology, combined with legal context analysis, this paper explores the prospects of the new trends of managing law firms and legal service delivery. In doing this, the ethical challenges facing law firms in Nigeria in adopting technological approach to law firm management and legal service delivery are analysed. It concludes by proposing review of the *Rules of Professional Conduct, 2007* so as to allow law firms in the country maximise the potentials of information and communication technologies in rendering legal services to their clients. Certainly, in this technological age, there are now moves towards emergence of lawyers without border.

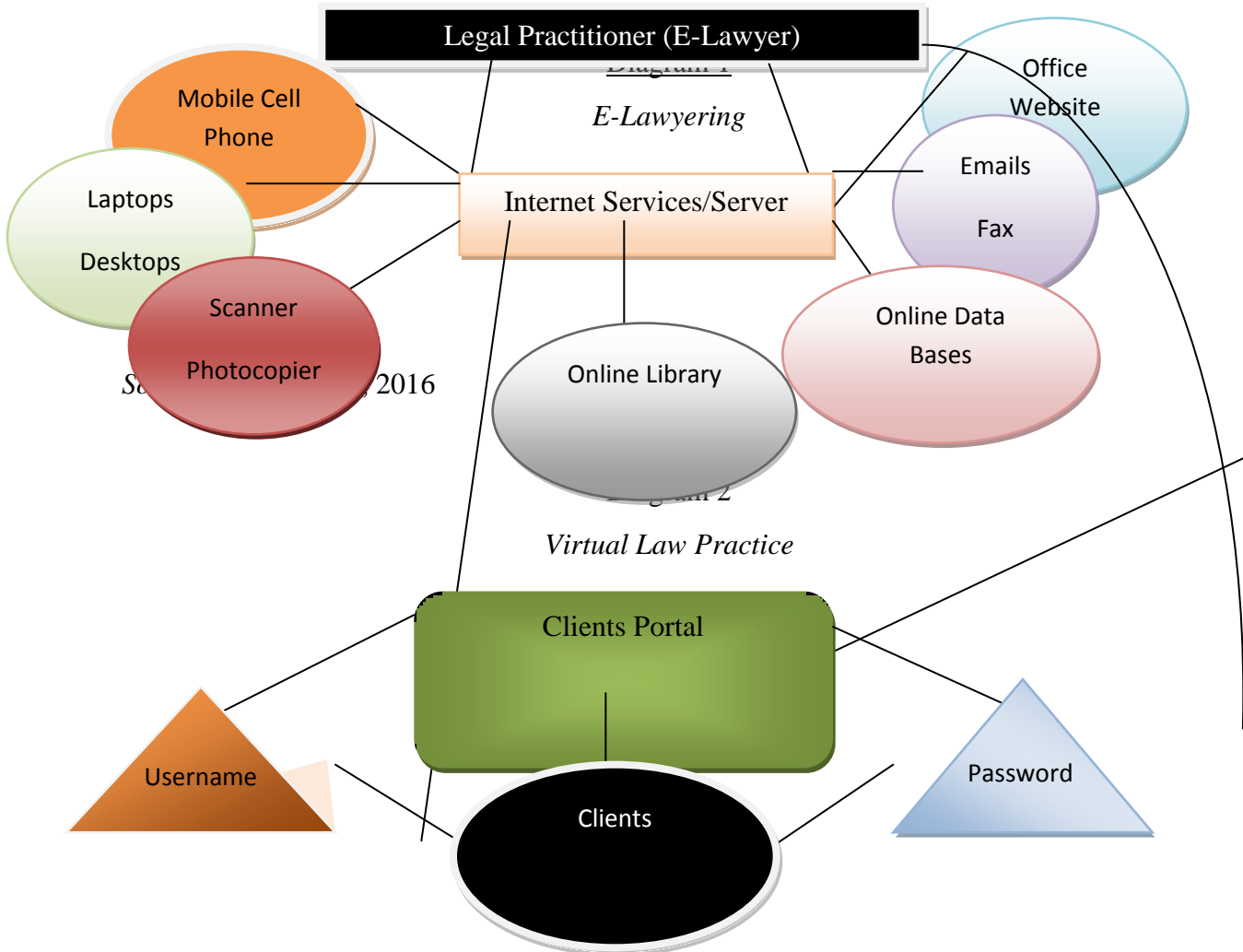
## II. CONCEPT OF VIRTUAL LAW PRACTICE/ E-LAWYERING

Virtual law practice is a professional law practice that is located online and which delivers legal service to the clients through a secure portal (Kimbrow, 2010). Practicing law virtually requires a secure Internet portal on a law firm website that utilizes cloud technology to deliver legal services online. A virtual law firm or virtual law office is characterized by access of the firm's clients to a password along with protected and secure web space where both the attorney and the client may interact and legal services are consumed by the client. More specifically, it can be defined as having a secure client portal that is accessible from the law firm's web site (Williams, 2013).

Even though both virtual law practice and e-lawyering are used interchangeably to describe online delivery of legal services, there are some notable differences between them. E- Lawyering is the ways in which lawyers can do their work using the Web and associated technologies. These include new ways of communicating and collaborating with clients, prospective clients and other lawyers, produce documents, settle disputes and manage legal knowledge (kimbro, 2010). Virtual law practice, on the other hand, requires that a client should be able to log into a secure web space with a user name and password where they can access the firm's legal services. Thus, e-lawyering is the technological approach to the legal practice by lawyers while virtual law practice is the technological approach to consumption of legal services by clients.

Virtual law practice may take many forms depending on the technology that a lawyer or a law firm has chosen or developed to use in practice. However, the key component of a virtual practice is the delivery of legal services through the Internet from the lawyer to the client through a secured client portal. The diagrams below explain these further.





Source: (c) Authors, 2016

### III. NEW MODELS OF LEGAL SERVICES DELIVERY

Recently, the Hastings College of the Law in its research paper series published a report on new models of legal practice. These new models offer a new value proposition for lawyers and clients. For the legal profession, they offer better work-life balance in that they increase flexibility of work, better quality of life for their members, and a way for lawyers to pool their resources as a single firm working remotely and allowing them to practice anywhere even from the comfort of their homes. For clients, the new models significantly drive down the legal fees. The report identifies

five distinct kinds of emerging new practice models (Williams, Platt & Lee, 2015). These are explained below.

- i. **Secondment Firms;** This model of legal practice places lawyers in house, typically to work at a client site either on a temporary basis or part-time (usually a few days a week). Some consist exclusively of senior lawyers who can function either as general counsel or as regional heads of legal departments in very large companies, while others place more junior lawyers to help with overflow work from the in-house departments. The report shows that the secondment firms are dominated by both male and female lawyers; the male lawyers work "full-time flex" a 40-hour week, structured around family responsibilities or other interests while their female colleagues work part-time. In both work structures, the lawyers are paid only for the hours they work.
- ii. **Law & Business Advice Companies;** This model combines legal advice with general business advice of the type traditionally provided by management consulting firms, and/or help clients with investment/banking as well as legal needs.
- iii. **Law Firm Accordion Companies** This model assembles networks of curated lawyers available to enable law firms to accordion up to meet short-term staffing needs. Typically, these networks are female lawyers who work short part-time hours (10-20 hours a week.) Attorneys are paid only for the hours they work.
- iv. **Innovative Law Firms and Companies** This model covers the widest variety of different business models. The most innovative in this model is that it allows for a company with a new monetization model, providing legal services in return for a monthly subscription fee. This also allows the attorneys to work in a sophisticated legal practice on an 8:30 a.m.-5:30 p.m. schedule, with little or no weekend work, and three weeks' unplugged vacation per year. This type of law firms change key elements of the traditional law firm model in ways that allow for better work-life balance and also have one or more of the following elements: alternative fee arrangements, team scheduling, and elimination of the partner/associate distinction and "rainmaking" requirements.
- v. **Virtual Law Firms and Companies;** This model typically drives down overhead by having attorneys work from their own homes and again dispense with a guaranteed salary. Its allows attorneys to work as little or as much as they wish. This model varies a lot: some are very similar to traditional law firms, while others are companies in which many of the functions traditionally performed by lawyers, notably rainmaking, are the province of the company owners.

The virtual law firms have evolved to take several different forms. These range from solo legal practitioners to multi-lawyers' and multi-jurisdictional virtual practices. The unique features of the virtual law practice regardless of the forms include: the use of cloud-based technology to operate the firm; working outside the traditional bricks and mortar office space; using virtual

assistance for administrative work; and, using an online client portal for delivery of legal services (Kimbrow, 2010).

#### **IV. PROSPECTS OF VIRTUAL LAW PRACTICE IN NIGERIA**

There are four types of law firms in Nigeria, namely; “sole practitionership”; “sole proprietor-ship”; “associateship and “partnership” (Doherty, 1998). These are the traditionally approved modes of practicing law in Nigeria (Ishola, 2012). The legal practice in Nigeria is yet to advance into the electronic form and the legal market in the country needs some innovations to meet the challenges of the information technology age. Virtual law practice is suitable to all lawyers irrespective of the types of traditional law firms operated and it has some unique features that can be easily embraced by all legal practitioners as well, regardless of age and space. This is especially relevant to the female lawyers and others yearning for flexibility in work schedules. Unfortunately, the requisite legal environment to support the virtual law practice has not yet been created by the legal profession in the country.

Young lawyers in Nigeria have been longing towards alternatives to the traditional legal practice workplace and styles. It is now common knowledge that the new generation of lawyers in the country are no longer comfortable with the working hours in the traditional law firms usually scheduled for 8:00am to 7:00pm or 8:00 am to 8:00pm, Monday to Friday and 10:00am to 4:00pm on Saturdays, as well as during public holidays. Alternatively, virtual law practice brings flexibility in the working arrangements, making it possible to be easily adjusted and refined as circumstances in the Attorney’s personal life require. For instance, a nursing female lawyer in a virtual law firm may be allowed to work from the comfort of her home. This model of practice therefore presents a brighter prospect to the legal professionals generally and young and female lawyers particularly in the country and ultimately, it creates a better work/life balance for the legal professionals (Williams, Platt & Lee, 2015).

From the above, it is clear that virtual law practice is a viable model for young lawyers in Nigeria, who are faced with the challenge of limited capital that makes it difficult to maintain an office apartment, to practice law. Also, the virtual law firm model eases the barrier of entry for young lawyers to get started as a sole practitionership (i.e. a form of law firm run by a single lawyer without any other lawyer working with him) or associateship (i.e. a system of law firm where two or more lawyers occupy the same apartment and shared financial expenses such as for maintenance, but with their individual clear practices). The model reduces the capital of running law firm in terms of overhead capital associated with setup and maintenance of a traditional law office. In fact, law schools in some countries have adjusted their programmes to introduce “Virtual Law Practice/Firm” as part of their curricula.

There are numerous merits that can be identified with the virtual law practice. With the deployment of appropriate technology, it allows team work among colleagues in the law firm, especially big law firms; and, creates a unique opportunity to collaborate with other lawyers on a broader scale than may be otherwise possible in the traditional bricks and mortar settings. Virtual collaboration

improves the skills of lawyers by sharing knowledge in the area of specialisation and expertise among members of the virtual team. These unique features may serve as impetus for legal practitioners in Nigeria to start embracing the virtual law practice.

The legal market has begun to experience client driven revolution in the delivery of legal services. This has led to change in the client-base as most clients now prefer online legal services. Virtual law practice is one of the quick and appropriate responses to the change in the legal market. The model creates almost equal opportunities for all lawyers in the emerging legal markets (Williams, 2013). Thus, the model provides opportunities for young lawyers in Nigeria to compete favourably with big law firms in the legal marketplace. This shows that there are attractive prospects for virtual law practice in the country.

## **V. ETHICAL CHALLENGES OF VIRTUAL LAW PRACTICE IN NIGERIA**

The ethical and professional conduct of lawyers in Nigeria is governed by the *Rules of Professional Conduct for Legal Practitioners 2007*. The “Rules” is the standard of conduct and if a lawyer acts in contravention of any of its provisions, such conduct is regarded as professional misconduct which is liable to punishment. It is noticeable that the Rules does not yet provide for the emerging innovations in the legal practice brought about the information technology. There are several potential ethical challenges to the development and operation of the virtual law practice in Nigeria. The ethical challenge in this regard is that virtual law practice may involve what the Rules regards as the unauthorised practice of law such as online advertising and marketing restrictions; the ability to create alternative business structures that allow non lawyer ownership in a law firm and confidentiality of client data. Accordingly, it is important that the Nigerian Bar Association (NBA) addresses the barriers militating against streamlining new models of law practice such as virtual law practice into the legal profession in the country and thereby reviews the Rules to provide ethical guidelines on online legal service delivery. Before this is done, it is therefore the responsibility of individual lawyers intending to establish virtual law firm to avoid any violation of professional ethics. The notable ethical issues requiring urgent review of the Rules are identified below. It is believed that the review is necessary in respect of them to enable legal practitioners in the country operate ethically-complaint virtual law firms without violating rules of professional conduct.

### **i. Advertising and Marketing Restrictions**

Virtual law practice raises serious ethical issues in Nigeria because advertisement of legal services is ethically prohibited or restricted (Rule 39, *Rules of Professional Conduct for Legal Practitioners, 2007 [2007 Rules or the Rules]*). It appears from the provision of Rule 39 that law firms or legal practitioners in Nigeria cannot maximize the potentials of the internet or website as a modern day advertising tools. Ethically, Legal practitioners in Nigeria can only maintain a non-interactive website that simply provides information for reference, such as biographical and contact information of the firm, areas of practice and firm’s publications (Akangbe, 2013). To do more may lead to violation of Rule 39. This is not good for the growth of virtual law practice in the country.

Although there is nowhere in the world where advertisement in the legal profession is not regulated, some jurisdictions like the U.S. still allow legal practitioners to engage in moderate advertisement of their legal firms. The global trends of advertising businesses have finally caught up with the legal profession. Legal practitioners must therefore act quickly to work out the most appropriate advertisement model that will be suitable for the peculiarity of their profession. Therefore, legal practitioners in Nigeria now have two choices to either bid farewell to rules and regulations prohibiting advertisement and thereby key into the demands of modern information technology age or be left behind (Yusuf, 2013).

Impressively, NBA itself has acknowledged the need to review the Rules to be in line with the global trends of electronic legal service delivery. Thus, at the end of the 6th Annual Conference (with the theme “Raising the Bar, International Best Practices in Legal Practice” held in 2012, at Jogor Centre, Liberty Road, Ibadan) of its Section on Legal Practice (SLP), the communiqué issued (signed by the Chairman of the Section) conceded to the need for the rule on advertisement to be reviewed. It was thereby resolved among others that, “in view of the global trends in legal service delivery, there is the need to review the Rules of Professional Conduct as it relates to the restriction against advertising”. The NBA must therefore act fast to provide guidelines to practice of law in cyberspace. Without clear guidelines for lawyers to follow in the course of such development, the practice of law over the internet may continue to be faced with serious ethical problems.

## **ii. Unauthorized Practice of Law**

Another foremost ethical risk of the virtual law practice in Nigeria is what may amount to unauthorised practice of law. There are two ethical risks associated with virtual law practice in the country in this regard (Kimbrow, 2010). First, by the nature of the virtual law practice, the lawyer may be practicing law outside his or her jurisdiction when contacted by an online client who is resident in another jurisdiction where the lawyer is not admitted to practice. Second, by its nature, virtual law practice has high tendency of engendering partnering with a non-lawyer or with a lawyer who is not admitted to practice law in Nigeria. The legal ethical issues posed by these risks need further clarifications as provided in the following paragraphs.

The first risk is common to all forms of virtual law practice in that the law firm’s web-site is accessible to clients both within and outside the jurisdiction where the legal practitioner is admitted to practice. By stipulations of the standard Rules of the legal profession across jurisdictions, Nigeria inclusive, a lawyer can only practice law in a country where he is so professionally admitted or licensed. Consequently, it would amount to unauthorized practice of law if a lawyer in Nigeria uses his virtual law practice to draft a legal document that pertained to the laws of another country where the online client is resident. The reverse would however be the case if the legal service rendered relates to the Nigerian law even when the client is resident or domiciled abroad.

To prevent unauthorised practice of law in another jurisdiction, it is the responsibility of the virtual law practitioner to provide clear notice on his Website that he is only admitted or licensed to practice



law in the country in which the lawyer holds an active Bar License. In addition, the website should also contain some forms of automated jurisdiction check for the benefit of the client and the lawyer. This is best handled from the very beginning of the process of engaging the prospective client during the initial registration on the virtual law practice Website. For example, when the client registers on the Website, a simple check for the zip code would notify the lawyer that the client is resident outside his jurisdiction. A notice would then appear to the client stating that the lawyer may only be retained to answer legal questions and handle legal works related to the laws of the country for which the lawyer has an active law license (Kimbrow, 2010).

The second ethical risk would arise when a multi-jurisdictional virtual law firm, involving collaboration or association of lawyers from different countries, making them to engage in borderless law practice, is formed. By simple description, a multi-jurisdictional virtual law firm is a partnership of lawyers in different jurisdictions pooling their resources as a single firm and working remotely. This form of virtual law firm will amount to unauthorised law practice in Nigeria under Rule 5 of the Rules which clearly states that; "a Lawyer shall not form a partnership with a non-lawyer or with a lawyer who is not admitted to practice law in Nigeria, if any of the activities of the partnership consists of the practice of law". Although this Rule has been seriously criticised by Ishola (2012) as giving rise to many legal and constitutional issues, it still remains incontestable that multi-jurisdictional virtual law practice would still not be legally accommodated under the Rules.

Another ethical consideration from the above Rule 5 of the Rules relates to emerging alternative business structures in the law firm that permit non-lawyer to own shares in incorporation law firms just like in any company. The Alternative Business Structure (ABS) in law firms was introduced in the United Kingdom under the Legal Services Act of 2007 (UK) and through the law, ABS is now allowed in the United Kingdom and outside investors are permitted to have shares in a legal services business. This structure has been embraced by virtual law firm to partner with experts in technology to develop software to automate delivery of legal services online. This form of partnership is no doubt prohibited in Nigeria by Rule 5 above.

From another angle, since virtual law practice employs internet-based technology tools to gather and generate legal documents for clients, it remains intriguing whether use of software to deliver legal services online would amount to practice of law to even give rise to all the ethical issues earlier noted at all in the first place. The most referenced case on this issue is *Unauthorized Practice of Law Committee v. Parsons Technology, Inc* (179 F.3d 956; 1999 U.S. App). In the case, Texas Bar's Unauthorized Practice of Law Committee brought the suit in the U.S. District Court in Texas claiming that Parsons Technology, Inc., doing business as Quicken Family Lawyer, engaged in the unauthorized practice of law by distributing software that created legal documents. The court decided in favour of the Bar, characterizing the software as a "cyberlawyer". However, living up to the modern reality, as it is expected also in Nigeria, the decision prompted Texas legislature to change the definition of unauthorized law practice to read: "the 'practice of law' does not include the design, creation, publication, distribution, display, or sale . . . [of] computer software, or similar



products if the products clearly and conspicuously states that the products are not a substitute for the advice of an attorney". Learning from the Texas experience, there is therefore the urgent need for NBA to redefine what constitute practice of law and unauthorised practice in line with the modern technological realities. To this end, Rule 5 (1) and (2) certainly need to be reviewed for the ethical challenge of unauthorised law practice posed by them, in addition to other legal reasons which Ishola (2012) had earlier advocated for the review of Rule 5 (5) as well.

### iii. Ethics of Confidentiality of Client Information

Regardless of space and time, the rules of professional conduct for legal practitioners have long recognized the importance of confidentiality of client information as a primary ethical issue. In Nigeria, Rule 19(1 & 2) of the Rules dealt with Confidences of a Client. By this Rule, it is the duty of a lawyer to preserve his client's confidences a lawyers shall not knowingly reveal a confidence or secret of his client.

Undoubtedly, confidentiality of the client data may be at risk when technology is used to deliver legal services to clients online. The virtual attorney should therefore, take reasonable precautions to protect confidential information which is transmitted between the attorney and the client. A virtual law practice should have a Secure Sockets Layer (SSL) certificate and provide the clients with secure transmission of data. The same technology used by online banking and government tax authorities to provide services is the same level of security that should be used in operating a web-based virtual law practice. Within a virtual law practice, the only individuals who should have access to confidential attorney/client information should be the attorney and the client (Salyzyn, 2014). By following these guidelines for a virtual law practice, the attorney may be confident that he or she is complying with the reasonable care standards required by the NBA regarding protecting client confidential information.

## VI. Conclusion

Virtual law practice has expanded the opportunity of the legal professionals to conduct legal services online all over the world. However, the Nigerian *Rules of Professional Conduct for Legal Practitioners, 2007* (the Rules), is largely inadequate to address the ethical issues raised by online legal service delivery. The Nigeria Bar Association must realise that Internet has successfully removed geographical barriers and made the whole world a single market for legal practice business. Therefore, in view of the global trends in legal service delivery, there is the need to review the relevant provisions of the Rules of Professional Conduct to enable legal practitioners in the country maximize the potentials of the internet or website services delivery tools.

The ethical issues associated with virtual law practice in Nigeria demand urgent responses from the Bar. Some jurisdictions like USA have responded to the new ethical issues confronting virtual law practice through issuance of opinions to provide appropriate guidelines on ethical issues on e-lawyering and virtual law practice. There is a special lesson to be learnt from the UK where

Alternative Business Structure (ABS) in law firms has been legally recognised affording opportunities to lawyers to practice in incorporation with the consequences of attracting non-lawyers to own shares in the legal firms' companies (*Legal Services Act of 2007*, UK).

The basic concern of the legal profession in Nigeria in its bid to ensure that its members conduct themselves in the most dignified and professional manner is that, it tasks every law to “uphold and observe the rule of law, promote and foster the cause of justice, maintain a high standard of professional conduct and shall not engage in any conduct which is unbecoming of a legal practitioner”. In this sense, since virtual law practice does not stand against the legal practitioner in fulfilling all these lofty required conducts, but would rather make him to “maintain a high standard of professional conduct”, it would be in the interest of the Rules that all the clogs in the wheel of the progress of virtual law practice is removed. There is also no basis to exercise any fear that the virtual law practice would make the lawyer to engage in any conduct which is unbecoming of a legal practitioner”. Rather, the virtual law practice would open wider opportunities for legal practitioners, make the practice less stressful and raise the standard of the profession in the eyes of the public and attract the legal practice in the country to others resident outside the country.

Virtual law practice is a good professional conduct that should be encouraged in Nigeria. All ethical and professional Rules constraining its emergence and adoption in the country should therefore be reviewed without much further delay. This is a form of e-governance system worthy to be entrenched in the profession as it is the modern realities directing the legal practice towards its future. Nigeria should not wait for an end envisaged for lawyers by the reason of the ITC (Susskind, 2010) to be dawn on the legal practitioners in the country before it mainstreams them into the system. Virtual law practice is therefore a right step in the right direction that should be taken to modernise the legal profession in Nigeria. What else? Even for the relative competition that now exists in the profession, “clients – from multi-national corporations to individual citizens – deserve nothing less from their professional advisers” (Susskind, 2010).

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## Legal Framework for a Viable E-Justice System in Nigeria

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#### Abstract

*E-justice System is no longer a new phenomenon in the Justice sector. The Courts in most of the advanced jurisdictions are no doubt witnessing either partial or holistic transition from paper-based system to electronic-based system. Since the launch of the Judiciary Information Technology Policy Document (JITPD) by the former Chief Justice of Nigeria (CJN), Justice Dahiru Musdapher in 2012, the successive leadership of the apex Court has been making consecutive efforts towards transforming Nigerian Courts to electronic based. Therefore, adopting the doctrinal legal research methodology, combined with legal context analysis, the paper examines the existing legal regime. It further examines legal framework in other jurisdictions where electronic justice system has been successfully implemented with the view of learning from their experiences, particularly in areas of practice and procedure to facilitate implementation of the e-justice system in Nigeria. The conclusion reached is that little attention has been given to the need for provision of relevant legal framework for successful implementation of e-justice system. It is therefore, necessary for attention to be shifted towards addressing the issue.*

*Keywords: e-justice, e-court, e-filing and service, electronic case management system, videoconferencing and Civil and Criminal Procedure Rules.*

#### I. INTRODUCTION

Electronic revolution is currently taking place within court systems across the nations (Dimitrov, 2013). The development of e-justice is a key element in the modernization of judicial systems.





The impetus for e-justice is to deliver more equitable, expeditious and transparent judicial services to citizens and the State (Dimitrov, 2013). For E-justice system to be successful it requires the implementation of relevant and appropriate legal framework to regulate the performance of the procedural acts electronically and as well address the security challenges of the electronic Court. This is achieved in most of the countries where e-justice has been successfully implemented by passing new laws, issuing new practice directions or making necessary amendment to the existing rules of Court.

The Judiciary in order to key in into e-government drive in Nigeria, launched Judiciary Information Technology Policy Document (JITPD) in 2012. Since the lunch of the JITPD by the former Chief Justice of Nigeria (CJN), Justice Dahiru Musdapher, successive leadership of the apex Court has been making consecutive efforts towards transforming Nigerian Courts to electronic based. Following the e-justice initiative of the apex Court, the leadership of some State High Courts such as Akwalbom High Court, Cross River High Court, Lagos State High Court and FCT High Court have equally embarked on somewhat e-justice projects (Ishola, Akangbe & Solahudeen, 2015).

Nevertheless, it appears that little attention has so far been given to the provision of relevant legal regime to regulate the use of Technology in Nigerian Courts. Equally, in the area of procedural rules the leadership of the Court have not taken the required steps to update the rules of procedure to authorise performance of procedural acts in electronic form through electronic channel. For instance, the procedural rules of the Courts claimed to have commenced e-filing in Nigeria contain provision authorising of court process via electronic means.

At present there is no legal basis in our existing Rules of Court for conducting of court business electronically. This is because there is no single provision in our procedural law that authorise the parties or Court to take a procedural step in electronic form via electronic channel. Therefore, this paper seek is to stimulate the amendments to the relevant procedural law in the context of e-justice.

## II. CONCEPT OF E-JUSTICE

It will not be out of place to first explain the concept of e-justice in context of e-government project. In broad terms, e-Justice is the use of new technologies in the field of justice, i.e. in the performance of the activity of the Courts (Inchausti, 2010). E-justice can also be defined as the use of information and communication technology to improve access of citizens to justice and effective judicial action, which consists of dispute settlement or the imposition of criminal sanctions (Dimitrov, 2013). It is a state of Judicial system making full use of information and communication technologies for the provision of efficiency and transparency of judicial system and convenience for the citizens and legal entities (Dimitrov, 2013)

The concept of electronic justice or Court was succinctly described by Australian's Court in the case of **Harris Scarfe v Ernst & Young (2005) SASC 407** – thus; *'The electronic court*



*enables the trial to be conducted to a large extent in a “paperless” fashion. It goes beyond the electronic storage and retrieval of relevant documents on the court file, such as pleadings, particulars, lists of documents and notices to admit. It includes electronic presentation of witness statements, expert reports, chronologies, lists of authorities and outlines of argument. More significantly the database includes documents which will be, or are likely to be, tendered and the electronic version of the transcript. There is the option of incorporating real time transcript of the proceedings...’*

It is essential to note that the use of electronic systems affects how an activity or institution functions, but not what it does. Thus, the term e-Justice does not refer to a different kind of Justice, or to a different Judicial Power, or to any difference in jurisdictional functioning: e-Justice is ordinary Justice, but making use of the information and communication technologies (ICT) devices for effective and efficient organization and performance of the judicial services (Inchausti, 2010).

Therefore, e-justice signifies only transition in the channel of performance of procedural acts from paper to electronic form. For instance, service of court process continues to be service, even if it is carried out by e-mail, just as the evidence of a witness does not lose its essence because it is given via video link. Importantly, E-Justice is a basic component under the more general umbrella of e-government. This is because Justice Sector is an arm of government rendering judicial services to the citizen through resolution of dispute and interpretation of law. However, Judiciary across the world faces challenges of delivering better services to those seeking justice. The three critical challenges in this regard are delay, access to Court and corruption in the administration of justice (Dory, 2009). E-justice system is believed to have potential of ensuring effective and efficient judicial services delivery.

### **III. BENEFITS OF E-JUSTICE SYSTEM**

In digital age, there is explosion of data as a result of advancement in the information technology (IT). ICT has a major role to play in achieving efficient and speedy dispensation of justice in judiciary. The primary drive for incorporation of information technology into the organisation and administration of justice is to reduce case delay and improve efficiency of the sector. It is assumed that deployment of information technology into the administration of justice system will produce the following benefits.

- a. It reduces delay and enhances efficiency in the administration of justice
- b. It enhances access to justice
- c. It promotes transparency which is a fundamental element of justice
- d. It has a potential to eliminate corruption in the judiciary
- e. It enhances participation of the parties in court proceedings
- f. It brings greater convenience and flexibility in conducting court business.
- g. It reduces cost of litigation

#### IV. MAJOR CONCERNS OF E-JUSTICE SYSTEM

The major concerns relating to the e-justice system are the issues of security and independency of the judiciary. The imminent security issues relating to e-justice system relates to the authenticity and integrity of the court process transmit and retain in the electronic form. There is the need to address these issues in order to maintain public confidence. Certain requirements have been established to ensure security and reliability of the e-justice system (Kengyel & Nemessanyi, 2012). E-justice system to be secured must be capable of ensuring the following;

- a. Authenticity of the filer, by way of mechanisms that verify the identity of the filer of the court process.
- b. Integrity of the court process. To ensure that the court process is not altered during and after transmission to the Court through electronic channel.
- c. Non repudiation. Means of proof that the court process has been served, such that the filer cannot deny that it has been transmitted, and the adverse party cannot deny that it has been received.
- d. Confidentiality, such that only the party may have access to the content of the information.
- e. Timestamping, so that it is possible to verify the exact time court process was transmitted and served.

There is also concern that e-justice system may be a threat to the independency of Judiciary. This is due to the fact that e-justice system tends to make judiciary more dependent on the IT vendors as most of the e-justice projects in most jurisdictions, except US are outsourced to the IT vendors. This option is foisted on most of the judiciaries either because of lack of ICT development skills within court systems or outsourcing is felt to be more cost-efficient. Some of the e-justice scholars have expressed great concern on this strategic choice which may likely weaken the judicial system by making it too dependent on vendors for the design of systems and for technical assistance, including the implementation of changes after the system comes into operation (Fabri, 2009).

#### V. AN OVERVIEW OF EXISTING LEGAL FRAMEWORK IN NIGERIA.

The legal frameworks regulating administration of justice in Nigeria, especially procedural law, were generally fashioned along the paper-based system. They were made without any purposeful consideration of the e-justice system. The existing procedural laws do not contain provisions for regulating the use of IT in conducting court business. However, in the area of substantive law few legislations have been made recently to enhance E-government initiative in Nigeria. The relevant legal framework for e-justice in Nigeria presently are *National Information Technology Development Agency (NITDA) Act, 2007*, *Evidence Act 2011*, *Administration of criminal justice Act, 2015* and *Cybercrimes (Prohibition and Prevention,) Act, 2015*. These legislations make provisions which provides necessary legal framework for implementation E-governance policies in both private and public sectors. Below is the brief examination of the relevant provisions of these Acts.

***National Information Technology Development Agency (NITDA) Act 2007.***

To drive the e-government initiative in Nigeria, the *National Information Technology Development Agency (NITDA) Act 2007* was passed to establish an agency to provide a sound legal framework for diffusion of e-governance in both private and public sectors. The Agency under the Ministry of Communication Technology is to champion the implementation of e-governance in government institutions and the judicial sector is not excluded. The agency has recently developed e-government framework as a master plan for the nation. However, it must be mentioned that NITDA has not done enough in providing frameworks as well as giving necessary technical supports to the Judiciary in its drive towards entrenching e-justice system in Nigeria Courts.

***The Evidence Act 2011***

Another important legislation that provides necessary legal framework for enhancement of e-justice in Nigeria is *Evidence Act 2011* (CAP E14, Laws of the Federation of Nigeria, 2004). The Act allows the use of evidence in electronic form or format in Courts and equally gives legal recognition to electronic signature. These provisions are innovations in the 2011 Evidence Act and they provide sound basis for the e-Justice system.

***The administration of Criminal Justice Act 2015***

The administration of Criminal Justice Act 2015, equally allows the use of IT in recording of confessional statement of the suspect. Section 15 (1 and 4) provides for taking of photograph and full finger print impression of the suspect and recording of voluntary statement of the suspect in electronic form on a retrievable video compact disc or such other audio visual means. It is suggested that a record of arrested suspects should also be kept in electronic form. This will not only reduce costs, but also ensure effective management, monitoring and supervision of the record of arrests by the Attorney General and Chief Magistrate as envisaged in sections 29, 33 and 34 of the Administration of Criminal Justice Act. The record, if retained in electronic form, could be easily transmitted to the appropriate supervisory authority. This will no doubt, reduce cost and bring about convenience and effectiveness in the management and supervision of the record of crime. Finally, section 381 of the Administration of criminal justice Act should also be extended to allow e-lodgement of the first Information report to the Court.

***The Cybercrimes (Prohibition and Prevention,) Act, 2015***

The Act provides necessary legal framework for protection of critical national information infrastructure. It equally promotes security of cyberspace and protection of electronic communications, data and privacy right in the cyberspace. The act addresses to some extent, security concern of e-justice system.

From the foregoing, it is clear that a basic legal foundation has been laid for the implementation of e-justice system in the Nigerian Courts. However, it must be quickly pointed out that there exists gaps that need to be filled in both substantive law and procedural rules to authorise and regulate

the use of technology in conducting court businesses. It is therefore imperative for the leadership of the judiciary to maximise the legal opportunity by making necessary procedural rules to authorise and regulate the use of IT in conducting court businesses.

## **VI. IMPERATIVE LEGAL REFORM FOR SUCCESSFUL E-JUSTICE IN NIGERIA**

The use of technology in conducting court businesses as well as administration of Court requires appropriate legal framework to regulate its use. The business of Court is regulated by rules of procedure to ensure fairness in the proceeding. Court Procedural Rules are composed of rules governing mutual communications between the Court and parties or their representatives. However, the use of electronic channel as a medium of communication in court proceeding must be regulated based on the principles governing court procedure in line with well-established principles of practice and procedure. (Kengyel & Nemessanyi, 2012) Most of the advanced jurisdictions have developed appropriate legal framework to regulate the use of information technology through the issuance of practice direction or practice note as the case may be, or amendment of the civil procedure in in compliance with information age.

### ***Court Rules/Practice Direction on the Use of Information Technologies in Court***

One of the factors that increase the chances of a successful e-justice project is the development of rules of procedure to address the unique nature of e-justice system. The development of new rules becomes imperative because e-justice present challenges that are not addressed by the existing rules governing conventional paper based system (McMillan, Walker, and Webster, 2009). This part discusses key rules that need to be added to the body of the Nigerian procedural rules for successful e-justice project. Brief review of how other jurisdictions filled these gaps will assist the leadership in Nigerian judiciary to follow their lead in making relevant procedural amendments. It will equally provide a practical guide to leadership of Nigerian judiciary to develop the appropriate legal framework for e-justice.

#### **a. E-Filing**

In order to appreciate fully, the need for the Rules of Court to authorise e-filing, it is important to understand the requirement of validly filing a court process in current procedures rules, which is based on conventional system. In most jurisdictions, rules of procedure are very specific when it comes to rules governing filing of court process such as issuance of summons. The rules on filing or issuance of summons provide guidelines down to the level of details as to the size of paper for originating processes and the valid methods of delivering processes to the Court Registrar for filing. Thus, there is need for the legal framework not only to regulate but also authorise e-filing system (Carlson, 2008).

There are two approaches adopted by court leadership to regulate as well as authorise electronic filing. Some jurisdictions provide necessary framework by making amendment to the existing Court Rules. While others issue practice direction providing guideline for the use of electronic filing system. In the United States, the Federal Rules of Civil Procedure was amended in 1996 to provide comprehensive rules to authorise and regulate e-filing of cases in the Supreme Court and



as well, authorise individual Courts to make similar local rule in their respective Courts (Griese, 2003). Rule 5 (d)(3) Federal Rules of Civil Procedure provides that “a court may, by local rule, allow papers to be filed, signed, or verified by electronic means that are consistent with any technical standards established by the Judicial Conference of the United States. A local rule may require electronic filing only if reasonable exceptions are allowed. A paper filed electronically in compliance with a local rule is a written paper for purposes of these rules”.

It must however, be noted that even though individual Courts are empowered to make their own procedural rules for e-filing in the United States, the Federal Rules nevertheless prescribes some substantial requirements that have to be met by the local rules. It must also be noted that the Federal Rules of Civil Procedure provisions allowing e-filing were incorporated by reference into Rule 49(d) of the Federal Rules of Criminal Procedure.

Another key policy issue that need to be addressed is whether e-filing should be mandatory or voluntary. In making this decision, the court leadership must take into consideration the attitude of players in the administration of justice. In most of the jurisdictions e-filing is voluntary. This allows the parties or their attorneys including the Court to agree to exchange of court process by electronic means. For example, The Los Angeles County Superior Court has a rule that requires a party to execute a contract with the Court before filing documents electronically. However, some jurisdictions make e-filing mandatory in some designated cases. For instance, In the United States electronic filing is mandatory in Queens County Supreme Court, New York State, for all newly commenced medical malpractice actions. So also in Suffolk County Supreme Court (also in New York) for newly commenced real property tax law proceedings and foreclosure actions (Agbamuche-Mbu, 2014). A Guide to Model Rules for Electronic Filing and Service by Lexisnexis file & serve, provides the best example in this regard, thus;

- (1) *As of the effective date of this rule, except as expressly provided herein, all courts within the state [may or shall] accept electronic filing and service of pleadings and other documents designated in this rule as valid.*
- (2) *The court may at any time mandate electronic filing and service of pleadings and other documents in designated cases.*
- (3) *The court and the clerk's office may issue, file, and serve notices, orders, and other documents electronically, subject to the provision of these rules.*

#### **b. Registration of the filer**

Registration of the filer with the service provider of e-filing system or Court is one common requirement by most of the Courts that have implemented e-filing of case. The filers usually the parties or their attorneys, register for e-filing with the Court. The rule of Court requiring registration is to ensure that the filer's authenticity is guaranteed. The rules should explicitly require that each filer has his or her own login and password combination to protect his or her identity. A Guide to Model Rules for Electronic Filing and Service by Lexisnexis file & serve also provides good example of such rule thus;

- (i) *Persons who are authorized users and who desire to electronically file or serve documents shall register with the E-filing Provider. Upon receipt by the E-filing Provider of a*



*properly executed end-user agreement, the E-filing Provider shall assign to the user a confidential login and password to the system. Additional authorized users may be added at any time. No attorney or other user shall knowingly authorize or permit his or her username or password to be utilized by anyone.*

- (ii) *Registered users of the system shall notify the E-filing Provider immediately of any change in firm name, delivery address, fax number or email address.*

**c. Time of filing**

Another important unique feature of e-filing is the fact that the filing of a court process is no longer limited to the working hours of the court staff. E-filing of documents eliminates barriers of time in accessing the Court. No longer are parties and attorneys limited to court staff work schedules in filing and exchanging court processes. Therefore, there is need for rules to regulate computation of time taking into consideration the fact that with e-filing it is now possible to file process during non-working days. Several Courts have developed rules that provide guidelines for the timeline in which a process is deemed to be filed. For instance, if submitted on a working day within the usual business hours the filing is completed with the delivery onto the Courts server. Filings that take place later or on a weekend days however, are deemed to be filed on the next business day.

Rule 18 of the Los Angeles County Superior Court Rule is illustrative;

*An electronic document may be electronically submitted to the court at any time of the day, and shall be considered filed on the date and time that it is accepted. Acceptance shall be determined by the clerk, and shall be deemed to occur (i) on the date the filing was submitted if the submission began during normal business hours of the clerk's office, and (ii) on the next day the clerk's office is open for business if submission began after normal business hours of the clerk's office. Notwithstanding the foregoing, the court may authorize the electronic filing service to automatically accept certain electronic documents specified on a list provided by the court and published by the electronic filing service, in which case such filings shall be deemed accepted as of the date and time the filing was submitted, regardless of whether the office of the clerk is open for business.*

**d. Format of Electronic Documents.**

Another issue that need to be specified by the Rules of Court is the document formats. For instance, the Virginia Supreme Court Rule 1:17 c.1., provides that all documents shall be filed in the Portable Document Format (PDF) or in other approved formats. A Guide to Model Rules for Electronic Filing and Service by Lexisnexis file & serve equally provides the best example of the rule thus;

- (1) *Format. Each electronically filed document(s) shall be uploaded in a format accepted by the E-filing Provider. To the extent practicable, the document(s) should be formatted in accordance with the applicable rules governing formatting of paper documents, and in such other and further format as the Court may require from time to time. A document*

may exceed page limitation rules to a maximum of two (2) additional pages when the additional pages are attributed to the electronic conversion or filing process.

- (a) The E-filing Provider will automatically convert uploaded documents to Adobe® PDF format, but the original format will also be available for downloading.
- (b) The official record of the Court is the PDF version.
- (2) Title of Documents. The electronic document title of each pleading or other document, shall include:
  - (a) Party or parties filing/serving the document,
  - (b) Descriptive title of the document,
  - (c) Party or parties against whom relief, if any, is sought, and
  - (d) Nature of the relief sought (e.g., Defendant ABC Corporation Motion for Summary Judgment") might emerge in the future.

#### **e. Attachments and exhibits**

One of the most noteworthy problems for electronic filing till date, has been how to handle attachments and exhibits in e-filing. Often, the accompanying documents to the court processes that are necessary to support the pleading are on paper, not in a computer system. The Santa Clara County Superior Court and the U.S. District Court for the Eastern District of Pennsylvania require all attachments to be included with the electronic document. The Pennsylvania Court also requires all materials to be in American Standard Code for Information Interchanged (ASCII) format; no graphics of any kind are allowed (Griese, 2003).

#### **f. Payment of Filing Fees**

The e-justice system to complement the convenience of e-filing must provide functionality of online payment of filing fees. It must be noted that different approaches were adopted by Courts in respect of electronic payment of filing fees. In most jurisdictions payments are made to the Court through electronic filing provider. For instance, The Superior Court of the District of Columbia Electronic Filing Rules provides that the filer shall pay the filing fees directly to the electronic filing vendor. In this case the rules allow an E-filing Provider to charge registered users additional fees to deliver, access and use the service. These fees shall be payable to the E-filing Provider at the time of filing and are in addition to statutory filing fees.

#### **g. Court Confirmation/Acknowledgment**

When documents are filed with a Court, confirmation is essential for the filing party, hence most Courts have developed rules that deal with the confirmation of electronically filed documents. Rules of Courts in Nevada, Los Angeles, Santa Clara, and Virginia provide instructive examples of electronic acknowledgment processes.

Nevada Revised Statutes, 171.103.171.103 provides thus; *If a court clerk accepts a complaint that is filed electronically pursuant to subsection 1, the court clerk shall acknowledge receipt of the complaint by an electronic time stamp and shall electronically return the complaint with the electronic time stamp to the prosecuting attorney. A complaint that is filed and time-stamped*

*electronically pursuant to this section may be converted into a printed document and served upon a defendant in the same manner as a complaint that is not filed electronically.*

Los Angeles County Superior Court Rule 18.00 Electronic Filing and Service provides thus; *Upon receiving an acceptable electronic document, the electronic filing system or clerk shall return to the sender a statement confirming acceptance of the filing. The confirmation shall include a notation of the date and time of filing. If an electronic document is received but unacceptable, the electronic filing system or a clerk shall also notify the sender of the document's rejection and the grounds for rejection. A copy of this confirmation or rejection will be retained in the permanent electronic case file maintained by the court.*

Santa Clara County Superior Court Local Rule 1.7.2., also provides that the Court shall return to the sender of an electronic filing a Digitally Signed confirmation of the acceptance or rejection of the filing. The confirmation shall include a notation of the date of filing.

#### **h. E-service**

As regard the electronic service of court processes, different approaches are adopted by various jurisdictions in their e-justice models. Electronic means of service of court processes is allowed in some jurisdictions with the exception of originating processes. Originating processes must be served on the adverse party personally. For instance, there are no specific provisions allowing originating process to be served by electronic means in the Federal Rules of Civil Procedure.

Rule 4 (e)(2) of the Federal Rules of Civil Procedure states that the first service on the defendant may be done by delivering a copy of the summons and of the complaint to the individual personally, or leaving a copy of each at the individual's dwelling or usual place of abode with someone of suitable age and discretion who resides there, or delivering a copy of each to an agent authorized by appointment or by law to receive service of process. By contrast, when it comes to the service of other documents, Rule 5 of the Federal Rules of Civil Procedure allows electronic service. Rule 5 (b)(2)(e) of the Federal Rules of Civil Procedure allows service of a document to be made by "sending it by electronic means if the person consented in writing in which event service is complete upon transmission, but is not effective if the serving party learns that it did not reach the person to be served".

The English Civil Procedure Rules and Practice Direction deserves special attention due to its thoroughness and pragmatism as regards to the electronic service of documents. Rule 6.3 (1)(d) of the Civil Procedure Rules establishes the methods that can be used to serve a claim form which includes other means of electronic communication in accordance with Practice Direction 6A. Equally, for the service of documents other than the claim form, Rule 6.20 (1)(d) also allows the use of "other means of electronic communication in accordance with Practice Direction 6A". Practice Direction 6A develops the provisions of Rule 6 of the Civil Procedure Rules and provides general conditions on electronic service of document thus; where a document is to be served by electronic means, the party who is to be served or the solicitor acting for that party must previously have indicated in writing to the party serving that the party to be served or the solicitor is willing to accept service by electronic means and the e-mail address or other electronic identification to which it must be sent. For those purposes, the following are to be

taken as sufficient written indications: an e-mail address set out on the writing paper of the solicitor acting for the party to be served but only where it is stated that the e-mail address may be used for service; or an e-mail address or electronic identification set out on a statement of case or a response to a claim filed with the Court.

### **i. Video Conference**

The use of video link to take evidence of witness from remote location requires both the rules of Courts and laws of evidence to give recognition and provide for the various methods of taking and presenting evidence electronically. U.S. has developed procedural rules allowing and regulating the use of videoconferencing in Court. For instance, Rule 43 of the Federal Rules of Civil Procedure provides thus; *in open court, at trial, the witness's testimony must be taken in open court unless a federal statute, the federal rules of evidence, these rules, or other rules adopted by the Supreme Court provide otherwise. For good cause in compelling circumstances and with appropriate safeguards, the court may permit testimony in open court by contemporaneous transmission from a different location.*

Australia also provides a useful example in section 121 of the Evidence Act 1905 (Western Australia) on taking of evidence by remote witness technology i.e through video conferencing. It provides as follows:

*(1) Subject to this section, a Western Australia court may, on its own initiative or on the application of a party to a proceeding in or before the court, direct that in that proceeding evidence be taken or a submission be received by video link or audio link from a person at a place, whether in or outside this State, that is outside the courtroom or other place where the court is sitting. (2) The court shall not make such a direction unless the court is satisfied that — (a) the video link or audio link is available or can reasonably be made available; and (b) the direction is in the interests of justice. For the purposes of taking evidence or receiving a submission by video link or audio link from a place in this State in accordance with such a direction, the place shall be taken to be part of the court.*

*(4) For the purposes of taking evidence or receiving a submission by video link or audio link from a place in a participating jurisdiction, the court may exercise in that place any of its powers that the court is permitted, under the law of the jurisdiction, to exercise in that place.*

These legal regimes will enable vulnerable classes of witnesses – children, victims of sexual assault etc to give evidence remotely via video links (Anne Wallace, 2008).

## **CONCLUSION**

The advent of ICT has provided a platform for delivery of services electronically. E-justice system is being embraced as a means of delivering better judicial services to the citizens by the justice sectors across the globe. Nigerian Courts are not left out in the implementation of e-justice system. In a bid to provide adequate legal framework, few legislations have recently been passed to enhance e-government initiative in Nigeria. So far in area of substantive law a solid



legal foundation has been laid for the implementation of e-justice system in the Nigerian Courts. But presently, the Rules of Nigerian Courts do not contain provisions allowing the business of the Courts to be conducted electronically. It has therefore, become imperative from this study, for the leadership of the judiciary to maximise the legal framework provided in the substantive legislation by making necessary procedural rules to authorise and regulate the use of IT in conducting court businesses in Nigeria.

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## ***ICT Adoption and Public Sector Governance***



**e-Governance Conference**

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**E-GOVERNMENT AND SUSTAINABLE DEVELOPMENT:  
BRIDGING THE DIGITAL DIVIDE FOR INCLUSIVE GROWTH AND  
DEVELOPMENT IN NIGERIA**

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**Abstract**

*In the era of Globalisation, Information and Communication Technology (ICT) is a major driver of sustainable development. It facilitates speed, efficiency and integrity in all areas of human endeavours including: government actions and activities. In a Neo-Patrimonial society characterised by parochial tendencies, e-government promotes a high moral and ethical order and ensures speed in the implementation of public policies and programmes that are aimed at developmental goals. With the use of the theory of cybernetics, the paper surmised that the neo-traditional approach to government actions and activities should give way for electronic government characterized by regulated and controlled sharing of data electronically in order to achieve the goals of sustainable development. However, this will involve government taking certain steps to mitigate the negative effects of the infra-institutional approach that has for too long dominated public management. Among others, these steps would involve better funding of ICT and government system in the public sector, attitudinal change by public servants towards global best practices in ICT, availability of uninterrupted power supply, dogged pursuit of knowledge integration and digitalisation, collaboration between public sector institutions and civil society organisations in the pursuit of sustainable development among others.*

**Keyword:** *ICT, E-government, development and sustainable development*

## **Introduction**

The world today is getting more complex and contradictory. Government in different countries are coming up with different ways of addressing the challenges posed by modernization in our societies. Information and Telecommunication Technology (ICT) is one of the foremost innovations that the human mind has come up with to confront the rising challenges attendant on industrialization and globalization. ICT has brought immense innovations into the way and manner information, interaction, collaboration and business transactions are carried out between and within organizations, individuals and groups. ICT has revolutionised the transaction of business, knowledge and satellite technologies for communication and other strategic use. It has brought countries and people's of the world closer (Mistry and Jalal, 2012).

Yet, the human mind is still not at rest as it seeks better ways and means of getting things done. In pursuance of this goal, the E-concept has evolved from the ICT process. Thus, today we are in the E-era where: E-learning, E-democracy, E-participation, E-mobilization, E-government and governance, E-citizen, among others are dominant. While these concepts may not be new, they have drawn on telecommunication technology to leverage on their activities. E-government is the use of ICT to carry out the actions and activities of government to uplift the living standard of the people, and promotion of the overall development of society the primary reasons for its existence (Lawal and Oluwatoyin, 2011).

Given challenges the Nigerian state has had with sustaining its development efforts over the years, it is argued that E-government could help realize the socio-economic and political agenda of every setting government in the country. Overtime, emphasis of E-government has been on how public service delivery can be carried out efficiently and effectively. But little have been written on how the broader digitalization of E-government activities can help realize the goals of sustainable development in a developing country like Nigeria. It is this apparent gap that this study intends to fill. The main objective of the study therefore, is to examine how the digitalization of E-government can bring about the speedy realization of the goals of sustainable development in Nigeria.

To address the central issues of the paper, it is organized into the following sections. The first section engaged in conceptual and theoretical discourse. The second carried out an overview of the nature of ICT, E-government and sustainable development in Nigeria. The third analysed efforts at E-government and sustainable development in Nigeria. The fourth dwelled on challenges facing the process of E-government and sustainable development. The fifth proffer the areas of hopes for sustainable development using E-government as technological tool.

## **Conceptual and Theoretical Discourse**

Information and Telecommunication Technology (ICT) as a concept has enjoyed conceptual agreements among scholars. It is generally seen as the use of wireless devices to get information,

goods and services from one person to another with ease. Dibia (2014) sees “E-government as the application of information and communication technologies by government to link network and create infrastructure through which to channel the delivery of a variety of government services”. The central elements of this process are: increased efficiency, openness, transparency and citizen centered government (ibid). Through E-government, the citizens have greater opportunities to participate in public affair in what is known as E-participation. Through this, the citizens’ needs are better met. Through E-democracy, the people are steered up for public activities.

In the context of public sector management, E-government tends to emphasis how government can render effective and efficient services to its clients while the broader political and social agenda of government are given scant regard. However, this is an area digitalization of E-government should strive to address, particularly, in the rural areas which hardly feel the impact of government development drives (Bonina and Cordella, 2008). Major discourse on E-government in the literature tend to centre on the new public management (NPM) main planks such as: efficiency and accountability (Olopa, 2010). Yet, if sustainable national development is to be achieved, we must go beyond the narrow conception of E-government to a broader one that will incorporate, socio-economic, and politico-environmental values that ensure an all inclusive growth and development of the entire society we live in. For people of the grassroots to be part of this movement, local content should be infused into the E-government process to make it accessible to all Nigerians (The Punch Newspaper, September 22, 2014).

Digitalization of E-government activities could facilitate this process. It refers to the process of generating and distributing government information to improve the living standard of the people! This is necessary because information is power. Yet, government actions and activities may be unknown to a lot of people particularly at the grassroots. Indeed, Larsen (in Ogundipe, 2012) “observes that our ability to generate and collect digital information continues to grow faster than our means to organize, manage and effectively use it”. Therefore, it is not enough to digitalize information about government activities, it should make sure it gets to the grassroots where majority of Nigerians live. Not only getting it to them, they should have them in the language they understand.

E-government could fast-track or leap-frog sustainable national development in Nigeria. This subject has become a torny one in the country following the failure of successive development plans to be concritised and embedded overtime and space. But what is development? Development as a concept has not been universally defined. Yet, there is a growing consensus that the concept goes beyond the fetishism or preoccupation with socio-economic growth or rise in per-capital income. Development is an all embracing and inclusive process that aims at changes in all aspects of societal life which progresses from one state of being to another. For Odumegwu (in Adefarasin, 2015), development is the integration of the various givens: natural,



physical acquired and human, towards a full working out, permanently and cumulatively of their being as persons of their community and of their productivity.

This perspective to the concept of development shows that not only should there be changes in the positive direction, they should embrace or cover all areas of human life to bring about quantitative and qualitative changes in the people's welfare and well-being. Thus, development is not a stop gap measure but inclusive and holistic in nature. This view on the concept aligns with that of Gboyega (2003) who posits that development is "an idea that embodies all attempts to improve the conditions of human existence in all its ramifications. In the above perspective to development is inherent the concept of national development. It could be regarded as a broader notion of development that involves all strata of society. Thus, national development can be seen as a composite process that draws together into an intelligible whole socio-economic, political and cultural advancement of a country or nation (Akhakpe, 2014).

Over the years development planning in Nigeria has been characterized by so much notion without movement (Ayo, 1988; Ake, 1996). This suggests to us that the process and outcomes of development have not been consolidated or embedded in the various facets of the national life. Therefore, sustainable development is a task that must be done. But what does sustainable development mean? In the words of Oyeshola (2008), it is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Yet, if development is to endure the environment where it takes place should be preserved for use by the present and future generations. To Olise (in Chukwu-Okoronkwo 2015), "sustainable development is the process of ensuring that present development is indeed, sustained and maintained for the future". This has to be done by government and other stakeholders today for a better society tomorrow.

Of all available theories that could be used to unravel our subject matter of investigation, the cybernetic theory is perhaps the most potent. In the age of information technology, a system of regulation and control of the process of development is necessary and the cybernetics theory present, arguably the best tool for achieving this goal in order to promote sustainable development. Cybernetics technology provides man and management of any system with effective tools for self regulating processes and environmental control (Kummanuru, 2014). It is posited that cybernetic science and computer technology could help build a meta-systemic reality where application of developing telecommunications and processing technologies could make possible a degree of worldwide value consensus on, for example, sustainable development (Kummanuru, 2014). Indeed, social and other policies of government could utilize benefits of cybernetic science, in particular its control system to bring about sustainable development in the context of policy uncertainty and high policy morbidity in Nigeria. Cybernetics deal with communication and manipulation of information to achieve certain results, which could be sustainable development. It is used in controlling behavior of biological, physical, chemical,

social and organizational systems. These are areas where the Nigerian polity is deficient (Gon Calves, 2015).

While cybernetic culture has long evolved in the West, Nigeria is yet to fully come to terms with it. Also, in a polity characterized by surplus labour force, a nascent private sector and few employment opportunities, there is the likelihood of machine or robots sub-planting the human role in organizations, with its attendant strikes by workers, as is most often experienced at the General Motors in the United States of America. Having said these, in the digital age, communication between departments agencies and individuals and reforms of administration, these activities need to be regulated and controlled if sustainable development is to be effectual and sustained. This is where cybernetics theory is heuristic for government and Nigerians.

### **The Nature of E-Government and Sustainable National Development**

Nigeria has had several development plans and strategies dating back from the colonial era to the present post-independence years. It would seem the level of national development today is a far-cry from the amount of efforts committed towards these exercises. This point can be gleaned from the macro-social level of development in the polity. From the African perspective, Ake (1996) observed that:

Three (or more) decades of pre-occupation with development in Africa have yielded meager returns. African economies have been stagnating or regressing. For most Africans real income are lower than they were two decades ago, health prospects are poorer, malnourishment is widespread and infrastructure is breaking down as are some social institutions.

The above submission also represent an apt description of Nigeria's development predicaments. Yet, it is not as if government has not been making gallant efforts at developing the state and its people. But such efforts over the years have not been sustained. Thereby leading to government making the same efforts over and over again without getting it right-like moving in cycles!

It is against this backdrop that E-government can bring into play, the needed antidotes to resolve this perennial crisis in development. To be sure, e-government is a derivative from the information and telecommunication technology (ICT) revolution. ICT or satellite communication is increasingly creating "an information environment that is complete and fluid, connective and interactive, diverse and unpredictable...." (in Ogundipe, 2012). From a broader angle, communication is considered "vital for connecting states with society, facilitating inclusive political systems, giving voice to the poor and marginalized groups and enabling citizens participation and social accountability" (Ojenike, Adedokun and Ojenike, 2014).

To Ojo (in Aina, Okunna and Dapo-Asaju, 2014), ICT came from the fusion of three components, information, communication and the computer technologies to form what is regarded as the information age. Realizing its potentials to stimulate and drive the process of socio-economic, politico-cultural and environmental transformation in human society), integration of ICT into the process of government and governance is being rigorously pursued in Nigeria. Indeed, unless such endeavour is fully realized, E-government cannot make any meaningful impact on sustainable national development. In the light of this, Hawkins (in Aina, Okunna and Dapo-Asaju, 2014) enthused that knowledge and information have become the most important currency for productivity, competitiveness and increased wealth and prosperity” in the public sector in particular and society in general.

However, does Nigeria has what it takes to leverage on these amenities or benefits put in place by ICT? Presently, it would seem that the wherewithal is not substantially in place. However, government is making major efforts to put in place the ICT environment for all sectors of the society to benefit from, in the pursuit of sustainable development in the country. The country over time has made steady progress in building institutions, structures and infrastructures that could facilitate the ICT system on which the E-government practice can leverage. The appropriation and application of the E-government system in the public sector has been receiving government attention (Agunlaye, 2011). Though in the ranking of ICT compliance countries in Africa, Nigeria is rank low behind countries like Cape-Verde, Kenya and South Africa (Adeyemo, 2010). In spite, of this set-back, the federal government has put in place policies, institutions and structures that would in no distant time place the country in the league of giants in science and technology. In Nigeria presently, neo-patrimonial and patron-client systems are giving way for technology powered public service and administration where human interventions are reduced to the barest minimum.

To demonstrate its commitment, readiness and seriousness to join the knowledge age, government at the federal level is taking the initiative to drive the ICT revolution in the society in general and the public service in particular. In pursuance of this goal, it established the National Information Technology Development Agency (NITDA) in 2003. In 2004, it set up the public service network (PSnet) that has enabled the integration of all ministries and the National Assembly through the internet (Agunloye, 2009). While electronic transaction is being increasingly embraced, not much have been done by E-government to digitalise its information and distribute same to all sectors of the society particularly, the rural areas.

However, the federal government has taken a major step in this direction by launching into the orbit, the Nigerian communication satellite (NOACOMSAT 1). This is first of its kind in Africa. The Nigerian communication satellite project was first awarded to China Great Wall Industry Corporation – a subsidiary of China Aerospace Science and Technology Corporation (CASC) in 2004 (Chukwu-Okoronkwo, 2015). In 2011, the federal government re-launched NSACOMSATIR) and it has become a critical ICT backbone infrastructure that will support the growth of the nations broadcast and telecom industry (Chukwu-Okoronkwo, 2015).

NITDA has since embarked on several projects and programmes aimed at developing technology and its usage across the country. The project on infrastructure development and human capacity development are all aimed at getting as much people and areas as possible involved in ICT usage which will make the job of E-government easier and the ultimate goal of sustainable development realizable. Yet, there is still much to be done! According to the NITDA, “there is a need for renewed moves, focus and activities to ensure that the tempo that has been generated is further strengthened so that we can take this industry with renewed vigour to greater height” (The Punch Newspaper, September 22, 2014).

However, E-government practices and ICT usage in the public sector have sign-posted mixed outcomes. Majorly, they exist at the level of potentials that are yet to be fully realized. While E-payment, E-receipting, E-registration, bank verification system, E-licencing, E-examination, E-mobilization, E-collection, among others, are being utilized presently in the public sector, their score-cards have been less than satisfactory. Though they have the potentials to reduce corruption, promote accountability and reduce other forms of unpatriotic acts by public servants and members of the public. Following the introduction of the cashless policy by the Central Bank of Nigeria, E-payment was evolved and on the flip side, E-collection has also been introduced. Government officials believe that the “introduction of Electronic Collection (E-collection) by the federal government will help curb revenue-related corruption practices in its Ministries, Departments and Agencies” (The Punch Newspaper, February 9, 2015). Albeit, corruption remains an issue in the country’s public service.

Similarly, the West African Examination Council (WAEC) has since introduced the Computer Based Test in the conduct of its Unified Tertiary Matriculation Examination (UTME). This method has accelerated the processing and early release of the UTME results. Also, it has the advantage of checking and curtailing the possibility of examination mal-practices by candidates seating for its examinations. However, it has not progressed without its short-comings which have blurred its potentials for transparent and accountable examination processes in West Africa.

### **Sustainable Development in Nigeria**

Nigeria has had a chequered journey to sustainable development. From its formative years to the present post-independent era, the country has had several development plans and strategies. However, if the present level of development in the country is anything to go by, it would seem, much need to be done to leap-frog and sustain whatever gains that have been harvested over time. To be sure, sustainable development is a complex and intertwined process. However, given its important to the realization of the fundamental objectives and directive principles of state policies, successive governments have taken some steps to address its imperative needs for the state and its citizenry. In furtherance of these goals, the government has since 1999 stepped up efforts on various fronts to address and redress issues associated with sustainable development in the country. For analytical purposes, we shall address these issues from the political, economic, educational, social, health and environmental angles.



Sustaining the present democratic dispensation has continued to be an uphill task to the federal government. Prior to the 2015 General Elections in Nigeria, the Independent National Electoral Commission (INEC) introduced some form of information based technology such as: the Biometric Personal Voters Card (PVC), and in the course of the elections, finger prints were verified and the card reader was used in some polling stations across the country. Yet, credible elections and political stability still elude the country. Election rigging, insecurity, violence, killings, ballot box snatching and poor electoral management by INEC dominate the political system and process.

Economic activities in the country have been volatile. The country's economy has not enjoyed steady and sustained development in spite, of positive indicators to this effect. Because the country operates a mono-culture economy that is reliant on oil, it is susceptible to shock in oil prices in the international market. This has affected adversely the revenue and budget of the government for development. Agriculture, the hitherto main-stay of the rural economy is still not out of the woods in spite, of recent growth in the sector. Even as industries are closing down by the day due to poor power supply and unemployment. E-government system in these areas have posted mixed outcomes. This is in spite, of the fact that in 2014, Nigeria was adjudged the largest economy in Africa following its rebasing (The Punch, April, 2014).

Also, the federal government statistics show that "between 2002 and 2011, the economy grew at an average of 6.2 percent. Growth in the agriculture sector a non-oil sector of the economy, increased partly due to the agricultural policy and institutional support that government has consistently given to the sector, particularly the growth enhancement support to farmers (FGN, 2012). In spite, of these and many other, efforts of the government in the economy, poverty, food shortage, hunger and unemployment have vitiated the marginal growth and development recorded overtime. The use of bio-technology in increasing agriculture yield, has not been fully embraced by most farmers. Though most farmers now use the cell phone for communication.

Government has increased financial allocation to the educational sector in recent years. But the application or usage of tele-education has not been fully embraced. Internet services in most university campuses are epileptic, where they exist at all. Most students do not have personal computers while the reading culture is gradually dying in most tertiary institutions in the country. In pursuance of this goal, the need to integrate ICTs into various libraries and their operations have been acknowledged by government and concerted efforts are being made to make records, catalogue and text available in digitalized form to its clients using various ICT tools" (Aina, Okunna and Dapo-Asaju, 2014). In the information age, some libraries in the country have made efforts to digitalize their collections in order to make it available to the world knowledge (Aina, Okunna and Dapo-Asaju, 2014). Today AGORA (Access to Global Online Research in Agriculture) avail researchers in any of the libraries in the country, access to research materials or information from the AGORA database. Yet, power supply challenge and inadequate ICT tools in most library centres have made these resources ineffectual. Government need



information from researches to plan and implement development strategies. But with these short-falls in infrastructural and human capacities, development in this sector may be difficult to sustain (Ogundipe, 2012).

Also, the health sector has attracted government attention. Its statistics (FGN, 2012) shows that:

The infant mortality rate has fallen from 105 in 1999 to 85 in 2008, while under 5 mortality rate fall to 157 in 2008. From 178 death per 1,000 births in 1999. Child mortality rate for the male-child during 2003 to 2008 period is, 91 compared to 93 for female .... The maternal mortality ratio was 840 per 100.000 live births in 2008. There has, however, been a reduction in HIV/AIDS prevalence from 4.6 percent in 2007 to 4.1 percent in 2010.

In spite, of what looks like a modest achievements in this sector, government appears not to be spending enough in GDP component relating to the health sector. Also, it would seem policies and institutions for the health sector still suffer from financial and non-financial barriers that hinder household not only as producers of health, but users of health services. Health administrators and their clients lack adequate knowledge of what is in vogue in their various fields and areas of attention. And government cannot be reached by health users neither can government reach them due to poor availability of communication aids and health facilities in most grassroots communities across the country.

Nigeria is an oil producing and other mineral bearing country. Over the years, the country has experienced a feverish search for finite and non-finite resources that has caused various degrees of harm to the environment, where these exploration activities are taking place. The Niger-Delta region that harbours most of the country's oil wealth has become the flashpoint of insurgency, militancy and communal unrest (Olojede, Fayonyomi and Akhakpe, 2013). The 1999 constitution, perhaps envisage this development when it undertook to promote and realize through the state and environmental sustainability Act. Article 20 (sub-section 2) states that: "the state shall protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria" (FGN, 2012). As the pillar of sustainable development, environmental protection has not gotten the attention it deserves judging by the various threat it has come under in recent years in Nigeria. It would seem information, knowledge and their dissemination is not properly used in the country. Digitalization of information on the environment will help government planning and implementation of measures to redress its rising challenges.

### **E-Government and Sustainable Development: The Rising Challenges**

As earlier noted, ICT has revolutionalised how government does its business and with the potentials of speeding up the process of achieving sustainable national development. But there are many hurdles to scale. This section discusses these challenges with a view to proffering ways

of ameliorating them. It is widely acknowledged that information technology is creating “an information environment that is complete and fluid, connective and interactive, diverse and unpredictable, the professional provision of information is no longer constrained by time, space and place” (Ogundipe, 2012).

But how prepared is the country financially, materially, humanly and otherwise? Even in the best of times, funding of science and technology was not prioritized by the ruling elites. The education sector the centre for research and learning is poorly funded. It seems, not to be the priority of government for now. The yearly budget gets less than 10 percent allocation to the education sector, how can science and technology in this context growth and development can never be sustained. Many universities do not have functional libraries and ICT centres, internet facilities and other information system.

Again, the power supply situation in the country is a disservice to the drive towards the information/digital age. ICT and facilities it generates cannot be harvested by government and its clientel if there is no stable and reliable electricity supply throughout the country, irrespective of time, space and place. The information age is powered by electricity per time. It is an independent variable on which E-government and sustainable development can thrive on. The rural areas in Nigeria are more affected. They are isolated areas from development. Given the urban policy bias of successive government, only rural transformation can bring this part of the country to the centre of development (Weede, 1993; Koelin, 1995).

Yet, the economy must experience a new lease of life in order to engender inclusive growth and development. The call for diversification of the economy from a mono-product one, seem not to have been taken seriously as oil remain the focus of attention of the Buhari administration. But no country can pursue science and technology without a strong economy that can bring in steady funds for the pursuit of technological innovations. To join the ICT race, majority of Nigerians must come out of poverty, hunger and unemployment that are presently ravaging the country. Nigeria still ranked low among African countries that have embraced the ICT system (Adeyemo, 2011).

Similarly, the education sector is still poorly funded by government. No Nigerian university rank among the best ten in Africa. This is embarrassing for the biggest economy in Africa and arguably the richest in the continent. The UNESCOs twenty-eight percent required spending on education by national governments has not been realized in Nigeria. Most public universities do not have functional computers in their computer department nor internet facilities. Most of their e-libraries are not in functional conditions. Yet, as has been argued, “improving the quality of education through the diversification of content and methods and promoting experimentation, innovation, the diffusion and sharing of information and best practices as well as policy dialogue in the educational system are needful” (in Aina, Okunna and Dapo-Asaju, 2014).

The health sector is equally contending with rising challenges not only as one of the Millennium Development Goals but in the present sustainable development season. Its problems remain that of poor infrastructure. For example, poor health facilities particularly in the rural areas where many people are dying from preventable diseases such as: malaria, lassa fever, polio, yellow fever, among others. The rate at which women die at child birth is increasing in geometric progression. Health workers are few and far-apart in most grassroots communities. Yet, E-government is alien in these areas. Their level of illiteracy further alienates them from their government. Re-integrating them into the main-stream of government's activities is the gateway to sustainable national development in Nigeria!

In Nigeria, the environment has never been so threatened by “natural and human induced disasters such as: floods and erosion, population explosion exerting pressure on the environment, rapid deforestation resulting from unsustainable uses of forest resources for human survival (e.g. fuel, wood and energy, housing, etc)...” Also, indiscriminate and inappropriate mining activities in many part of Nigeria have left some areas of the country bare and unproductive. To these are added air and water pollution, liquid and solid waters associated with continued urbanization and industrialization in the country (FGN, 2012). Unless these environmental challenges are doggedly addressed and ameliorated, sustainable national development will remain a far-fetched possibility in the country.

We have spent considerable time analyzing challenges facing E-government in its efforts at promoting sustainable national development in a digital age. Yet, political stability is key to resolving these challenges. A country needs to be at peace for development to take place. Indeed, most of the challenges of development in the country are products of political instability which of course, bred corruption, waste and mismanagement. For many years, the country was under-authoritarian rule with all its infra-institutional approach to doing things. The return to civil rule, it was thought, would arrest this dangerous slide and stem the tide of socio-economic and politico-cultural decay. However, all these have not happened. Instead, there is still political impunity in the polity.

Why Nigeria has experienced commendable increase in internet and telecommunication systems with the introduction of mobile communication, there is still the challenge posed by broad band availability which militate against the use of E-government in promoting sustainable development in Nigeria, unlike its homologue in the west.

### **E-Government and Sustainable Development: The New Hopes**

In view of the foregoing challenges, how can the country come out of these “cul de sac” and launch itself into the part of sustainable national development using E-government as a veritable platform? To this question, we now turn for answer in this section.

As a matter of urgent national interest, the government at the federal, state and local government levels should engage massively in promoting E-learning in the country. Unless the generality of

Nigerians imbibe this approach to learning, every effort at E-government may not yield the expected dividends. It is only by practicing it that the people can get to perfect and settle with it.

Also, the economy must get out of the wood for any meaningful E-government practices to be achieved. Many Nigerians in the urban and rural areas are out of jobs. Poverty is rife in the land. Illiteracy is growing as many children are either not enrolled or dropping out of school due to lack of financial support. The girl-child is most endangered. Diversifying the economy and pursuing disciplined and principled economic practices are keys to sustainable development. All stakeholders however should be involved in this rebirth. Funds must be made available to pursue the programme of knowledge and information technologies.

Health, it is often said, is wealth. The active population of a country must be preserved for development to be sustained. One of the assets this country can boost of is its population. But government should be able to track and put them into its data-base and get them to be productive in useful areas of the national life before sustainable development can be achieved. Engaging them in productive ventures will save the country the pains of having to control or manage deviant behaviours of the youths such as: kidnapping, militancy, insurgency and ethno-religious crisis in the country.

Also, there is the need to cultivate a critical mass of trained and skilled personnel or human resource in the area of information and telecommunication technology in the country. More experts should be produced that will train and nurture those to carry these innovations brought by E-government to other parts of the country that are presently in the dark with respect to the information technology innovations and E-government practices. The use of digital knowledge do not come easy. A programme of training people in this area should be set out and faithfully implemented by government and other stakeholders in the industry for it to achieve.

Environmental sustainability for sustainable development the present and future development of the country is an imperative need that any country desirous of assuring the present and future development should imbibe. Consequently, ecological consciousness has grown over the years because “the consumerist behaviour that had predominated the world since the age of industrialization had brought with it concomitant ecological upheaval that (is causing) environmental degradation, the destruction of wild areas and the extinction of wide species, the permanent alternation of the atmosphere and the oceans, the depletion of non-renewable resources and the constitution of unregulated population growth” Partridge in (Otto, 2015). These unwholesome environmental practices if not checked could compromise the chances of the present and future generations of Nigerians having environmental resources for development.

General speaking, it has been opined that ICT can be used to advance a nation’s development agenda and its sustainability. In this regard, the Nigerian communication satellite presents a great potential to realize this goal. As Chukwu-Okoronkwo (2015) argues

The Nigerian communication satellite's great potential to impact on our noble quest for sustainable national development is certainly incontrovertible as it cut across almost every aspect of our individual and national life; be it on surveillance, security, and military applications, job creation, e-government, e-voting, e-commerce, e-banking and global partnership among others which include the provision of navigational services for the aviation and maritime industries, to mention but a few.

There is a compelling need today to go beyond mere potentials to actual utilization of the elements provided by the country's satellite communication system. Certainly, e-government can leverage on this to actualize the sustainable development agenda of the federal government.

In essence, there is the imperative need to embrace environmental governance. Although the national environmental policy of 1999 has put forward institutional arrangements and plans of action to ensure environmental sustainability, much still need to be done in the area of gathering the necessary data and the use of the e-government model to get them to address pressing environmental issues in the polity, that is, sustainable use of natural resources, and preserving the ecosystem, ecological process and bio-diversity in the country.

The imperative need to improve the social status of Nigerians cannot be over-emphasized. The morale of an average Nigerian today is very low due to actions and policies of governments over the years that have affected their welfare and well-being negatively. Although several government policies thrust are directed at addressing social sustainability as found in the National Economic Empowerment and Development Strategies (NEEDS) and the transformation agenda's social policies as they relate to vision 20, 20:20, not much seems to have been achieved in the area of poverty alleviation and human capital development. E-government will remain a mirage if these aspects of the national life are not addressed.

## **Conclusion**

E-government can bring about the realization of the sustainable development goals of the country if it is efficiently and effectively utilized. However, not until the teething problems that presently confront the E-government practices for sustainable development are effectively tackled, sustainable development may not be achieved. Government as a matter of urgency should put in place measures to address the infrastructure deficit in the country, particularly, in the area of power supply. Also, poverty alleviation; human capital needs in the area of ICT and E-learning; enhancement of the social status of Nigerians, among other imperatives for sustainable national development. Much more importantly, the political-economy of the country must be given the attention it deserves. The economy should be diversified and international best practices applied in managing it. Yet all these can only be achieved in a stable political



environment. Therefore, for a stable polity that engender sustainable development core democratic values such as popular participation in decision making, freedom of association, electoral governance, among others should be prioritised.

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## MANAGING CHANGE – TRANSITION FROM THE TRADITIONAL BUREAUCRATIC PRACTICES TO E-GOVERNMENT

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### **Abstract**

*In line with international best practice and public demand for a more efficient and responsive public service, Nigeria – like many other countries – gradually transitioned from the traditional bureaucratic practices to the use of Information and Communications Technologies (ICTs) - widely known as Electronic – government ( E-government). This system of governance demonstrates high level of effectiveness and efficiency in public service dispensation and the general conduct of government businesses in addition to promoting transparency and accountability in government. The adoption of e- government in Nigeria's public service was hinged on certain intended benefits. However, these benefits oftentimes do not occur. A large body of knowledge on the adoption of ICTs in Nigeria's public service exists, spanning from its prospects, to its implementation and challenges. However, the discourse has inadvertently neglected an important aspect which is the transition process. The transition from traditional bureaucratic practices to e- government, though desirable, can lead to many unintended outcomes if the 'people side', that is the human component of the public service are not taken into consideration in the transition process. The proper implementation of a transitional programme is therefore of utmost importance, if the intended outcomes of technology adoption are to be fully realized. This paper examines the implementation of e- government in Nigeria with a view on how to involve the public servants and the citizenry in general. The methodology adopted for this paper is qualitative as data from secondary sources were subject to content analysis.*

**Keywords:** *E- government, Change management, Bureaucracy*

### **Introduction**

In line with international best practice and public demand for a more efficient and responsive public service, Nigeria – like many other countries – gradually transitioned from the use of traditional bureaucratic practices to the use of Information and Communications Technologies

(ICTs) - widely known as Electronic – government (E-government). This system of governance, it is believed, demonstrates high level of effectiveness and efficiency in public service dispensation and the general conduct of government businesses in addition to promoting transparency and accountability in government. However, implementing a change programme, like this, in any organization is bound to encounter challenges, and may ultimately face the risk of failure, if it does not integrate the human component of organizations. This is particularly true of developing countries where over the years, records have shown that the high degree of failure of public sector reforms, among other factors, is due to the resistance from the people who are meant to implement the change (Gilley et al., 2009 cited in Ake, 2015).

This has also been observed in the implementation of e-government projects in developing countries, like Nigeria. Most implementations of e-government projects in developing countries are said to fail. Specifically, 35% of e-government projects fail totally, that is, they were not implemented, or were abandoned soon after implementation. Another 50% are considered to be partial failures, that is, the expected goals were not attained and/or there were unintended outcomes (Heeks, 2003 cited in Dada, 2006). These implementation failures are not unconnected with the gap that exists between the intent and reality of implementing e-government projects in developing countries. One of such gaps is the hard – soft gap which lays bare the difference between the actual technology (hard) and the reality of the social context that is, the people, culture etc. in which the system operates (soft) (Heeks, 2003). As Hornstein (2008), argues it is not the adoption of technology itself that guarantees organisational success, but the ability of such organizations to elevate the relevance of the human system within such organizations by integrating them into the organisational change management process.

The inability of most governments to integrate the human component in the implementation of e-government projects is the bane of implementing such projects in developing countries, including Nigeria. This paper therefore seeks to examine the challenges of the transition from traditional bureaucratic practices to the implementation of e-government in Nigeria as well as suggest solutions, in order to reduce its rate of failure. The study is divided into six sections. Following the introductory section, is the examination of the nature of the traditional public administrative system, followed by sections on the nature of e-government, the nature and challenges of the transition, managing the transition, and finally, the conclusion in that order. This study is qualitative in orientation and as such, it relies on secondary sources of data. The analysis of the data will essentially be descriptive.

## **THE NATURE OF TRADITIONAL PUBLIC ADMINISTRATIVE SYSTEMS**

The public administrative system is designed essentially to render public services to the citizens. These services cut across the social, economic and political spheres of society. In order to provide these services, the system develops certain processes and structures that would facilitate the attainment of this objective. These processes and structures are rooted in the works of Max Weber, Fredrick Taylor, Henri Fayol etc. This group of scholars is referred to as the classical

theorist of public administration. Their theory to a large extent has shaped the nature of the public administrative system of both the developed and developing countries.

Weber for instance, articulated the principles of bureaucracy which placed emphasis on the control of subordinate officials by superior officials in what could be described as a monocratic hierarchy. Pfiffner (2004) listed other characteristics of the Weberian ideal type bureaucracy as:

*“ a system of control in which policy is set at the top and carried out through a series of offices, with each manager and worker reporting to one superior and held to account by that person. The bureaucratic system is based on a set of rules and regulations flowing from public law: the system of control is rational and legal. The role of the bureaucrat is strictly subordinate to the political superior”.*

It is upon these principles that the Nigerian public administrative system is built.

The principles espoused by Weber on how the bureaucracy should operate shows a rigid and structurally hierarchical system. The process of government is based on adherence to rules and procedures. These rules and procedures make it difficult for public officials to be innovative in dealing with contemporary issues of citizens. For instance, due to the manual process of rendering public service, citizens have to physically visit ministries in order to receive them. This kind of process creates so many clearance points for citizens in their attempt to get government services. Similarly, information is not easily accessible as subordinate officials need the approval of their superiors before they can release such information. This manual process accounts for the delays citizens experience when accessing government services. Similarly, their rigid attachment to procedures for meeting citizens' demands makes it difficult to address the peculiarities of these demands. The procedures indicate the steps to follow thereby creating so many clearance points which is referred to as red-tape. This according to Okotoni (2001) “hinders quick action and effective communication among public bureaucracies”. Processing of a file takes longer time than required as emphasis is on adherence to procedures not prompt satisfaction of citizens' request. Similarly, Maduabum (2014) citing a report of a federal government's study team on 'structure, staffing and operations' observed the tendency for senior officials to seek clearance from top echelons of the service before taking a decision. This, the team observed leads to time-wasting and kills the initiative of intermediate officers.

The traditional public administrative system based on the principles propounded by Weber has been criticized by several scholars. This criticism bother on the assumptions underlining Weber's principles and the result it has generated over the years. Olatunji (2013) summarizes some of this criticism as follows:



- *That bureaucracy involves a danger of the means becoming the end or goal as procedures become ritualised and the official strives to apply rules to every detail of the job. Because bureaucracies are usually characterised by red tape, formalism, rigid rules, precision and reliability, Merton (1968) argued behaviour becomes stereotyped in ways that may not be appropriate to the specific set of circumstances currently confronting the bureaucrat. The results include conformity, timidity and conservatism that may not serve the needs of the organisation for adaptation and goal achievement (Sofer, 1973).*
- *Because office holding is based on rights and duties in an atmosphere where communication is not emphasized; insensitivity to the clientele may result. This may prove very costly in the case of public bureaucracies serving sensitive, educated, sophisticated and a more demanding clientele as of modern society.*
- *Standardization makes change difficult when circumstances change. This has been the bane of development in the new and developing states of the third world, Africa inclusive.*
- *By excessive reliance on rules and orders, bureaucracy breeds conservatism, timidity and under-utilizes human potential in the organization.*

This criticism among other things has been the basis for public sector reforms in developed and developing countries. Citizens were feeling a sense of alienation from the system meant to serve them and demanded a change in the structure and processes of the public sector. Apart from the inherent flaws noticed in Weber's ideal type bureaucracy, the Nigerian public administrative system is plague with certain distortions of the concept of bureaucracy. One of such distortions is the pervasiveness of corruption. Official government statements also lend credence to this. In 2003, President Olusegun Obasanjo noted that corruption together with inefficiency, has affected the quality of public service delivery, as well as impeding effective policy implementation in Nigeria (UNCT-CCA, 2012).

The adherence to rules and procedures as advocated by Weber have since been abandoned by public officials across government's ministries and agencies in Nigeria and have resorted to the indiscriminate award of contracts without following due process. Such cases of diversion of public funds for personal purposes abound at all levels of government. The culmination of the inherent flaws of Weber's ideal type bureaucracy and the corrupt nature of the public administrative system in Nigeria served as the basis for the introduction of E-government into the processes of government in the country.

## **ELECTRONIC GOVERNMENT: NATURE AND IMPLEMENTATION IN NIGERIA**

Electronic government is described as the use of ICTs to transform government by making it more accessible, effective, and accountable to its citizenry (InfoDev, 2004 cited in Ifinedo, 2006). It has also been described as the electronic delivery of services by the government to the citizens and other stakeholders, such as other levels of government and their agencies, government employees and the private sector. Succinctly, it is the use of information technology in the public sector (Heeks, 2006).

The term “Electronic Government” (e-government) was first used during the 1993 United States National Performance Review, and since then the term has evolved (Heeks, 2007). Its emergence is not unconnected with the invention of the internet by the Department of Defense in the United States of America. The introduction of the internet is said to have brought a number of changes in the way things are done around the world, both in the private and public sectors. It was the successes recorded in the implementation of electronic commerce (e-commerce), another by-product of the internet, which inspired and motivated governments to seek better delivery of public services through the use of the internet. The ever increasing expectation of the citizens who had experienced speed, dispatch and convenience of transaction in the private sector and who also desired the same of their governments, hastened governments to adopt the e-government for easier, faster and a more convenient means of service delivery and general interaction between the government and citizens as well as among governments’ MDAs. (Kariuki and Kiragu, 2011).

Barthwal (2003) discusses the concept as a generic one, encompassing; e-participation tools, e-decision making, e-consultation, e-communication strengthening two-way channels, e-democracy (processes and structures that encompass all forms of electronic communication between the electorate and the elected). E-government efforts are mainly facilitated by ICTs, and these consist of two parts: devices and systems, which are used to access, store, communicate, manipulate and share information. ICT devices are instruments such as cellular phones, televisions, and computers that are used by individuals to communicate over a network or system. On the other hand, ICT systems are interconnected devices and associated infrastructure such as networks used to facilitate communication and information sharing (Melody, Mansell, and Richards, 1986 cited in Gaskins, 2013). E-government aims at making the interaction between government and citizens (G2C), government and business enterprises (G2B), government and employees (G2E) and inter-agency relationships (G2G) more friendly, convenient, transparent, and inexpensive (Bose, 2004 cited in Ifinedo, 2006).

Kariuki and Kiragu (2011) also identified three domains of e-government namely; electronic administration (e- administration), electronic services (e-services) and electronic partnership (e-partnership). E-administration aims at delivering administrative services at lower cost. However, this is subject to the availability of a secure, reliable and low-cost data communication infrastructure. The use of intranet within public organizations can help to improve communications

as public servants can send and receive electronic mails. This and other forms of e-administration increase efficiency by way of saving time and cost of processing certain information. E-services including online application for services such as new passports or renewal, registration for examinations, vehicle licensing as well as distance education, aims at improving accessibility at an affordable cost and are delivered from a government's portal. E-partnerships enable intra and inter governmental organizations to interact as well as collaborate in service provision. Of the three domains highlighted, this is said to be the least developed.

The benefits that can accrue to the public sector through the implementation of e-government strategies have been highlighted by scholars and public sector practitioners alike. Gilbert, Balestrini, and Littleboy (2004), in their study, and AlFawwaz (2011) enumerate such from citizens' perspective to include: increased government accountability to citizens, more access to information for the public, more cost effective and efficient government, avoidance of personal interaction, convenience. Dada (2006), lists additional benefits including; less corruption, increased transparency, revenue growth. For Barthwal (2003) improved interactions with business and industry, citizen empowerment through access to information, strengthening people's voice, fostering partnership and collaboration between different levels of government (local, state and central), breaking bureaucratic barriers, are the core benefits of adopting e-government. However, according to Lio, Liu and Ou (2011), most of the enumerated benefits only exist theoretically, and are yet to be fully realized.

In Nigeria, E- government was officially introduced with the adoption of the National Information Technology policy in March 2001, with the objectives, among other things, to:

*improve accessibility to public administration for all citizens, bringing transparency to government processes, bringing the government to the doorsteps of people by creating virtual forum and facilities to strengthen accessibility to government information and facilitating interaction between the governed and government leading to transparency, accountability and the strengthening of democracy. And also by utilizing IT opportunities to restructure government, citizens and business interfaces for better governance, improved trade and commerce and administrative effectiveness (Nigeria National Policy for Information Technology, 2001).*

To implement the objectives of this policy with utmost impact, the Government established a National Information Technology Development Agency (NITDA) by an Act of the National Assembly in 2007 under the supervision and coordination of the Federal Ministry of Science and Technology. By implication, the NITDA is directly responsible for the implementation of the e-

government initiatives in Nigeria. This it does using the National e-government Strategy Limited (NeGSt), a public-private partnership project (NITDA, 2001). One of the flagship projects of government is the Government Service Portal (GSP). It provides a single window technology access for citizens and other stakeholders to government services being provided by various Ministries, Departments and Agencies (MDAs). The first phase of the GSP included the automation of ten government processes, from five Federal Government Ministries, namely; the Federal Ministries of Health, Agriculture, Industry, Trade and Investment, Education and Communication Technology (Aginam, 2014).

Several other government agencies and institutions have also adopted e-government strategies, including; tertiary educational institutions, examination agencies and other key governmental institutions like the Nigerian Immigration Service, in the form of information dissemination, form processing and carrying out financial transactions online, to enhance efficiency in their internal organization.

## **THE NATURE AND CHALLENGES OF THE TRANSITION**

As earlier established the traditional public administrative practices are time-tested and proven means of governments delivering services to their citizens. However, these practices have become unresponsive to and incapable of delivering the needed services to their citizens (Olowu, 1999, UNCT-CCA, 2012, Omotoso, 2014). As Karwal (2007) rightly observes, the traditional governmental structures and systems are no longer adequate and suitable to meet the demands of rising citizen aspirations and challenges of the contemporary complex and globalised economies. Studies have shown that governments around the world are leveraging on the ICTs to effectively dispense services and make the general conduct of government businesses more efficient (Dunleavy, Margetts, Bastow and Tinkler, 2005; Dada, 2006; Akesson, Skalen and Edvardsson, 2008; Karwal, 2012; Ifinedo, 2006).

Thus, the transition from traditional bureaucratic practices to e-government can best be described as the movement:

1. **From information asymmetry to information diffusion** - Asymmetry of information that is, the disproportional level of information, particularly of what it costs to deliver public services to the citizens. This usually exists between the government and the public servants on one hand, and the public servants and the citizens, on the other, and has formed the basis of aggravated corruption in the public service (Alabi and Fashagba, 2010). Indeed the privileged access the public servants have to information is unduly used to divert benefits in their own direction at the expense of the citizens. Information is hoarded under the guise of being official secrets. However, under the e-government regime, there is a transition to information diffusion, whereby information is properly

- processed and easily access by citizens. This in turn promotes transparency by making information freely available to all on government portals.
- II. **From face-to-face interaction to virtual meetings** – Whereas under the traditional bureaucratic regime, citizens and government officials must be in the physical presence of each other, in the confines of the government buildings, before any interaction can take place. However, with the introduction of e-government, meetings can now be held virtually as parties can now connect over a network. This has also further bridged the gap between the government and the citizens, as interactions have now become seamless. Citizens can now access government officials through their devices such as mobile phone and computers.
  - III. **From bureaucratic delays to speedy processing of information and delivery of services** – With the implementation of e-government, it is expected that delays associated with the old regime caused by red-tapism and the general attitude of government officials to work can be reduced, because an e-government driven process is expected to be without any form of delay.

As it has been previously established in this work, the greatest challenge in this transition is the inadvertent neglect of the people, particularly those who will be affected by the implementation of the new project, and are also threatened by these innovations. This is because they lack sufficient information about the scope of the change, the training implications, and the potential impact on role changes. This information vacuum is often filled with rumors instead of integrating and engaging all employees with the technology and business process improvement activities (Hornstein, 2008).

In their study on the challenges to the successful implementation of e-Government initiatives in Sub-Saharan Africa (SSA), Nkohkwo and Islam (2013) categorized the challenges under the acronym IF-POSH, which stands for Infrastructural, financial, political, organisational, socio-economic and human. They found out that the most important themes found under the Organizational aspect were leadership and change management. This implies that strong, effective and purposeful leadership is important in the transition process, yet it is lacking in most SSA countries. They also found the dearth of organizational skills and effective communication which is necessary in order to maintain the values, visions and values of all stakeholders in an e-government initiative. This poses a problem for countries in SSA whose governments are corrupt and might want to use ICTs for their own ends. This is true especially considering that government agencies in developing countries might view this as a threat to their viability and power, making them reluctant to promote the true objectives of e-government.

As change is inevitable in organizations, so also is resistance to change, particularly in the public sector (Madinda, 2014). The sources of resistance may comprise such factors as the fear of the



unknown, which results from the inability of implementers to adequately inform the employees of the organisational expectations from such a move. This vacuum creates fear in individuals who over the years have been stabilized within the system. Thus the proposed change could be viewed as a way of disrupting their normal life hence the resistance. There are also economic and social factors such as the fear that the change may affect their remuneration as it will render them redundant in their current comfort zones. Also the need to protect the social status and image they have built over the years may necessitate resistance from the employees. Also the inability to adjust to a new way of doing things due to the fact that a work habit has been formed on the job over the years, this also leads to resistance (Madinda, 2014).

### **MANAGING THE TRANSITION**

The transition from a manually driven public administrative system to one based on ICTs comes with its own challenges as discussed above. These challenges could however be overcome if the transition process is properly managed. For instance, Maduabum (2014) observed that innovative ideas are often resisted by superior officers. They perceive such ideas as inimical to their interest in the public service. They tend to view such changes in terms of job loss and the loss of certain benefits they receive from the existing system. Consequently, they tend to frustrate or not support such innovative ideas. This attitude exhibited by superior officers in government ministries are the likely responses to the introduction of new organizational procedures. The more reason initiators of these initiatives should prepare in advance measures that will address resistance to change by the human component within the public service.

The lack of local ownership of most public sector reforms was identified as part of the reason why these reforms fail to reach their logical conclusion. The top echelons of the public service should be seen as the key change agents, without their support and commitment to the E-government initiative, there is a high possibility of failure. Their role as leaders in managing change cannot be underestimated and is seen as the major factor to change success (Noer, 1997). Similarly, Higgs and Rowland (2005) cited in Sidra et al (2012) stated that "It is the leadership's behavior that makes the change situations more effective". Thus, the successful implementation of E-government for effective service delivery lies in the leadership of the public service. The leadership is responsible for such things as; setting out the plan, outlining the vision and purpose of E-government programme, develop a strategic of implementation and ensure that middle and lower level officials buy-in-to the programme. In other words, the leadership should be the main driver of the E-government programme as they understand the environment of the public service. Thus, overlooking its significance in the implementation of E-government programme could short-circuit the process. Consequently, government should put in place a forum to engage the top officials of the public service on the benefits of E-government and solicit their support in the implementation of the programme. Their inputs from the discussions held should form the part of the implementation process. Once their support for the programme is established, they should serve as the channel for galvanizing the commitment of the middle and lower level officials to

the new process of delivering public service. Similarly, the commitment and support of these leaders should be sustained throughout the implementation process. At no point should they feel sidelined in the process. On the contrary, concrete efforts should be made to ensure their engagement at every stage of the implementation process.

Terrell Katie (2015) noted that “In operational change initiatives, the goal of Organizational change Management is to ensure that users will embrace the change, understand why the new system was put into place and know how to work in the new system”. Thus, another key variable that should herald the introduction of a new process or initiative is for the key stakeholders to embrace the new system. The willingness to accept E-government initiatives must be present before E-government measures are introduced. The interest of those saddled with the responsibility of operating these processes must be engendered. They must see the overall picture of the introduction of E-government has been in their interest. Anything short of this could stymie the implementation process. The individual government official must be reoriented on the benefits of E-government such that there are no misconceptions of the programme. This involves effective communication of the reasons for change and benefits of the change. According to a Queensland government publication, it noted that “it is important that everyone in the organization and those interacting with the organization, both internal and external stakeholders are kept informed and provided with messages and information that will allow them to feel engaged, thus paving way for involvement and adoption”.

Effective communication is another vital component of managing the transition from manual processes to E-government platform. Prosci (2007) stated that “Poor change communication is a common cause of complaint and change research emphasizes that change can be derailed if the communication plan is ineffective”. Thus, the content and channel of communicating with the officials saddled with operating the E-government should be properly examine. This is with a view to understand likely areas that misconception could arise and the more effective medium of communicating with these officials. This is so important and should be done at the early stage of the implementation of the E-government programme. Vital information should be disseminated at the appropriate time and if possible repeated to ensure full assimilation of the information. Similarly, the communication should be two-way channel so as to get a response on the information given.

The last stage which by no means should the end of the change process is consolidation of the new initiative. This is what Lewin (1951) refer to as the refreezing stage. According to Kritsonis (2005:2) “The purpose of refreezing is to stabilize the new equilibrium resulting from the change by balancing both the driving and restraining forces”. This implies that the major impetus for the introduction of E-government should be balanced with resistance from public sector officials who have become comfortable with the old method of service delivery. This is necessary in order to ensure continuity of the programme. The officials must see the E-government platform as the new way of doing things such that the old system becomes unattractive. This means government

must institutionalize the process of E-government by ensuring that these officials interact with the system on a daily basis and has form a major part of government operations. Once this is achieved, the officials would embrace the new system and the old system will no longer be appealing to them, more so, when they begin to see the anticipated benefits of the new systems. The more reason initiators of E-government programme should clearly articulate from the beginning the benefits the new system has over the old system.

## CONCLUSION

The traditional public administrative system had its merit of achieving efficiency and effectiveness in public service delivery at the initial stage of the development of the discipline. However, as the needs in society became more complex and the methods of meeting them became obsolete, there was the need to adopt new measures. One of the major criticisms of the traditional administrative system was the inability to adapt to change and the emphasis on following rules which do not allow for creativity and innovation.

It was against these criticisms that calls were made for the reform of the public sector in order to make it relevant meeting contemporary societal needs. One of the reforms carried out in the public sector was the introduction of E-government. This was meant to ease the transaction time between the citizen and government and also ensure prompt delivery of public service. This kind of innovation like every other form of reform carried out in the public sector was met with certain resistance as government officials were already fixated on the traditional method of public administration and perceive this new technique could make them lose their jobs. This perception was based on the way public sector reforms were carried out in the 1980s and 1990s as a key aspect was the downsizing or rightsizing of the public service. A lot of government officials were disengaged from the service and there was a constant psychological torment on those remaining as they were not sure of their jobs. Consequently, subsequent reforms were meant with resistance in form of sabotaging the implementation process by not following through the various stages of the action plan. Similarly, most of these reforms measures were mainly backed by International donors and do not have local ownership thereby creating a disconnect between the government officials and the new system.

The process of transiting from the traditional public administrative system to E-government is one that requires careful management in order to arrive at the intended goal of the initiative. This can only be achieved by inculcating the human component in the implementation process. Implementation of E-government should not be seem as a technical process that encompasses only training of public officials on how to use this system. On the contrary, it should involve measures that will make these officials buy-in-to the new system such that they not have the wrong perception of it. Sidra et al (2012) stated that "Every living creature is reluctant to change, whether it's a planned change or accidental change". Therefore it is pertinent to include in the transition process measures that will correct any misconception of the E-government programme among government officials. They should be made to appreciate the enormous benefits that E-

government will offer them in the discharge of their duties. As Adedeji (2015) noted that “innovative ideas have the potential to transform the structure and processes of the public sector to make it more efficient and effective”. E-government is an innovative idea that has enhanced the efficiency of the public sector in delivering public service such that citizens could access information and make request without physical contact with public officials. Likewise, public officials can deal with enquiries and request from citizens and provide relevant information on government programmes with ease through the E-government platform. However, all these benefits will be lost if the initiators of the E-government programme do not bring on board the public officials who will operate this system. To achieve this will require a careful assessment of the human component of any change programme to ascertain areas of resistance by public officials and how it can be corrected. Successful implementation of E-government depends on the ability of the initiators to align the orientation of the public officials from the traditional system of public administration to the new and better way encapsulated in E-government.

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## **E-LEARNING AMONG SELECTED SECONDARY SCHOOLS IN IJEBU-NORTH LOCAL GOVERNMENT OF OGUN STATE**

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### **Abstract**

*The study examined E-learning in Ogun state, specifically secondary schools in Ijebu-North Local Government, which comprises of both privately and publicly owned schools. This paper sets to: identify the E-learning facilities; examine the level of teachers' application of E-learning facilities in teaching; and to examine the challenges facing the adoption of E-learning among privately and public owned secondary schools in Ago-Iwoye, Ogun State. The study was based on Constructivism Learning Theory. As a descriptive study, a 34 item self-designed with Cronbach's Alpha of 0.80, 0.86 and 0.71 for availability, application and challenges scales were used to collect the data for the study. Respondents were purposively selected from 5 private and government owned secondary school each. Results were analyzed through frequency counts, percentage, t-test and regression analysis. The study found out that there is a significant difference between E-learning facilities available in private and public secondary schools. There was also a significant relationship between availability, challenges of E-learning facilities and teachers application of E-learning facilities. The study concludes that despite the roles ICT-driven instructional aids can play in education, Nigerian schools, especially the government owned, are yet to extensively avail and adopt them for learning process as a result of certain challenges. It was recommended that E-learning facilities are to be made available and teachers should be exposed to the use of E-learning in teaching and learning through training and retraining as to keep them abreast of the innovation in education which will also help boosting the quality of learning*

**Keywords: E-learning, Information and Communication Technology (ICT), School, Students, Teachers.**

### **Introduction**

Education unlashes all human potentials and a critical factor to human life. It is generally accepted worldwide that education is the instrument "par excellent" for bringing about national development. Such development can be seen in the positive roles education play in the socio-cultural, political, economic and human aspect of nation building (Olorundare, 2003). The developed societies are so called because of their imposing values and investment in the education of their citizenry. When appropriately implemented therefore, education has the

capability of boosting the welfare and productivity of the citizens. It is therefore not surprising that most government spend a sizable chunk of their resources for the development of education. Nigeria's realization of the pivotal role of education can be seen with a perusal of the National Policy on Education (2013) document. Form the foregoing, the source and channel through which knowledge is been passed to pupils/students cannot be over emphasized. This is to say that our educational products are not only determined by the quality of curriculum, but also by the quality of teachers and medium used in imparting knowledge on the students.

The world of technology continued to grow and today Nations has become a global village. Recent achievements in the field of computer and communication technologies have offered tremendous opportunities for learning by electronic means (Rozina, 2002).By the beginning of the 21st millennium educational technology has stretched educational boundaries and created new ones on a daily basis. One of these new and rapidly expanding boundaries is E-learning which is offering tremendous advantage to education sector(Abimbade, 2002). E-learning as an aspect of ICT is relatively new in Nigeria's educational system.E-learning has become a new epitome and new underlying principles in library services as well as educational sector with a mission to serve as a development platform for present-day society based on knowledge. It is a departure from the conventional approach in curriculum implementation. E-learning has the potential to revolutionize the way we teach and how we learn (DfES, 2003).

Students who use ICTs gain deeper understanding of complex topics and concepts and are more likely to recall information and use it to solve problems outside the classroom (Apple Computer, 2002).Findings revealed that ICT raises the interest and performance of students (Arinze, 2012).Therefore, the relevance of the Information and Communication Technology (ICT) to learning reaffirms that students must have variety of skills to express themselves not only through outdated channel of paper and pen but also digital systems such as audio, video, and animation designed software. It is observed from the aforementioned statement that there is a need for students to develop learning skills that will enable them to think critically, analyze information, communicate, solve problem and compete successfully with their colleagues all over the world. Against this background, the study examinesE-learning in Ogun state, specifically secondary schools in Ago-Iwoye, which comprises of both privately and publicly owned schools.

### **Research Objectives**

The broad objective of the study is to examine E-learning among selected secondary schools in Ago-Iwoye, Ogun State. Specifically, the study set to:

1. Comparethe E-learning facilities available for teaching in selected public and private secondary schools;
2. Examine the level of teachers' application of E-learning facilities in teaching in selected secondary schools; and



3. Identify the challenges facing the adoption of E-learning among the selected secondary schools in Ago-Iwoye, Ogun State.

### **Research Hypotheses**

- Ho<sub>1</sub> – There is no significant difference between E-learning facilities available in Private and Public secondary schools
- Ho<sub>2</sub>–There is no significant relationship between availability of E-learning facilities and teachers application
- Ho<sub>3</sub> – There is no significant relationship between challenges of E-learning and teachers application

### **Literature Review**

Learning through electronic means such as via the web, Internet or other multimedia materials like computer, projector, television, audio and audio visual cassette, radio disc etc., the learner whether for or near have easy access to quality learning materials have robust and unlimited interaction with instructional contents, facilitators and other learners and are given support and appropriate time, make reasonable and responsible contributions to the learning process (Ajayi, 2005). In developing countries like Nigeria, E-learning is challenged with the problem of material devices such as computer, computer laboratories, Internet and e-mail facilities, videophone systems and teleconferencing devices, fax and wireless applications, digital library, digital classrooms, multimedia systems and the problem of multimedia courseware development among others (Global Information Technology Report, 2005; Effiong, 2005; Jegede and Owolabi, 2008; Seiden, 2000; Uhaegbu, 2001). This was reaffirmed by Aboderin and Kumuyi (2013), who stressed that there is shortage of E-learning tools such as Internet, computers, email facilities, multimedia, scanner, printer, VCD player, and digital camera in Nigerian secondary schools.

Studies also show that ICT technical support and Internet facility are lacking in schools. Furthermore, teacher's expertise and lack of knowledge to evaluate the use and role of ICT in teaching as the two prominent factors hindering teacher's readiness and confidence in using ICT support. Problems such as lack of Teachers' Professional knowledge and technical know-how (Adewole, Akinwale and Omokanye, 2008; Aremu and Adediran, 2011) and poor ICT infrastructure (Japheth and Cyprian, 2013) are common challenges faced in the adoption of E-learning in Nigeria. Nwana (2012) submitted that acute shortage of E-learning materials such as on-line/Internet-connected computers, e-mail facilities, multimedia television, multimedia computer and digital library. It was also revealed that the few available ones such as off-line/ordinary computers, scanner, printer and ready-made courseware are not utilized because the teachers lack the knowledge and skills of computer application. This was buttressed by other studies that indicated that there is dearth of trained teachers for E-learning, lack of facilities, infrastructures and equipment (Ikemenjima, 2005; Jegede and Owolabi, 2008; Adu, Eze, Salako, Nyangechi, 2013). Ajayi and Ekundayo (2009) revealed some challenges facing ICT in secondary schools as: irregular power supply; inadequate computer literate teachers; high cost of

purchasing computers in schools; inadequate facilities to support full application of the ICT and lack of fund.

Previous studies have been able to examine the availability and challenges of E-learning in Nigerian secondary schools as it have affected its adoption. However, these studies were largely theoretical studies and descriptive with limited empirical and inferential evidences. Furthermore, as at the time of these paper, few previous studies as examine the public and private secondary schools vis-à-vis the E-learning facilities available to students in those school. It was these gaps that propelled the researcher to examine E-learning among selected secondary schools in Ago-Iwoye, which comprises of both privately and publicly owned schools. Specifically, the study intends to expose difference between E-learning facilities available in Public and private secondary schools; whether there is a significant relationship between the availability of E-learning facilities and its application; and the relationship between the challenges of E-learning and its application.

### **Theoretical Underpinning**

#### **Constructivism Learning Theory**

This theory was propounded by Jerome Bruner (1960) whose work was influenced by Jean Piaget, a developmental psychologist. The underlying concept within the constructivism learning theory is the role which experiences with the adjoining atmosphere play in student education. Two of the key concepts within the constructivism learning theory which create the construction of an individual's new knowledge are accommodation and assimilation. Assimilating causes an individual to incorporate new experiences into the old experiences. This causes the individual to develop new outlooks, rethink what were once misunderstandings, and evaluate what is important, ultimately altering their perceptions. Accommodation, on the other hand, is reframing the world and new experiences into the mental capacity already present. Individuals conceive a particular fashion in which the world operates. When things do not operate within that context, they must accommodate and reframing the expectations with the outcomes.

The role of teachers in the key assumptions/concepts of this theory i.e., accommodation and assimilation, is very important. The teachers according to this theory function as facilitators whose role is to aid the student when it comes to their own understanding. The resources and lesson plans that must be initiated for this learning theory take a very different approach toward traditional learning as well. Instead of having the students relying on someone else's information and accepting it as truth, the constructivism learning theory supports that students should be exposed to data, primary sources, and the ability to interact with other students so that they can learn from the incorporation of their experiences. The constructivism learning theory will allow children to, at an early age or a late age, develop the skills and confidence to analyze the world around them, create solutions or support for developing issues, and then justify their words and actions, while encouraging those around them to do the same and respecting the differences in opinions for the contributions that they can make to the whole of the situation. Classroom



applications of constructivism support the philosophy of learning which build a students' understanding.

These reaffirmed the importance application of E-learning facilities by teachers in students learning processes. The application of Information and communication technologies as an essentials tool will allow children to, at an early age, develop the skills and confidence to analyze the world around them, create solutions or support for developing issues, and then justify their words and actions, while encouraging those around them to do the same and respecting the differences in opinions for the contributions that they can make to the whole of the situation since they are exposed to the use of technological resources. The utilization of ICT by students allows them to absorb and recall knowledge acquired from different technological sources. By so doing, students will be will equipped with the needed technological knowledge when they grow. Infact, employers may likely not to spend much money on ICT trainings. Creativity which is an essential tool for national development will be achieved.

### **Methods and Materials**

**Study Area:** The study was carried out in selected secondary schools in Ijebu-North Local Government in Ogun state. This comprised of both 5 private and 5 government owned schools. These schools were considered because they are government approved.

**Research Design:** This research study was descriptive in nature. A self-designed questionnaire which addresses the research objectives was used to collect the data for the study

**Study Population and Sample Size:** The population for the study consisted of all the teachers and principals in selected government approved secondary schools in Ijebu- North, Ogun State. According to a pilot survey done by the researcher, there are 20 principals including their vices and 97 secondary school teachers. Therefore, the study population was one hundred and seven (107) where 19% consist of the principals and 81% consist of the teachers. The sample size for the study was selected through the adoption of Yaro Yemen formula

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

Where n = sample size

N = study population

e = Margin of error (i.e. 1- confidence level)

$$\frac{107}{[1 + 107(0.05)^2]} = 84 \text{ respondents (Approximately)}$$

The sample for the study was made up of 68 teachers (81%) and 16 principals (19%) who were randomly selected. The characteristics in terms of sex, age and size of the study population was put into consideration before the sample size was chosen. This was done to ensure the adequacy and representativeness of the sample size.

**Instrument of data collection and Method of Data Analysis**

The study utilized primary method of data collection, which was quantitative in nature and secondary method of data collection including journals, conference presentations, textbooks and the like. The instrument for data collection was questionnaire with Cronbach’s Alpha of 0.80, 0.86 and 0.71 for availability, application and challenges scales were used to collect the data for the study. Furthermore, results were analyzed through frequency counts, percentage, t-test and regression analysis, through the help of Statistical Package for Social Sciences (SPSS) 20.0 version.

**Data Presentation and Analysis**

**Socio-demographic Characteristics of respondents**

**Table1.0**

Question	Response	Freq.	Percent.
School Ownership Structure	Private	34	53.1
	Public	30	46.9
	<b>Total</b>	64	100.0
Sex	Male	33	51.6
	Female	31	48.4
	<b>Total</b>	64	100.0
Age	20 Years or Less	10	15.6
	21-30	32	50.0
	31-40	12	18.8
	Above 40 Years	10	15.6
	<b>Total</b>	64	100.0
Religion	Christianity	31	48.4
	Islam	30	46.9
	Others	3	4.70
	<b>Total</b>	64	100.0



Marital Status	Single	23	35.9
	Married	38	59.4
	Others	3	4.70
	<b>Total</b>	64	100.0
Ethnicity	Yoruba	33	51.6
	Igbo	26	40.6
	Hausa	2	3.10
	Others	3	4.70
	<b>Total</b>	64	100
Education	O'Level	6	9.40
	OND/NCE/DIPLOMA	38	59.4
	B.Sc./HND	15	23.4
	Post graduate	2	3.10
	Professional Qualification	3	4.70
	<b>Total</b>	64	100.0
Working Experience	1-5 years	26	40.6
	6-10 years	28	43.8
	11 years above	10	15.6
	<b>Total</b>	64	100.0
Monthly Income	18,000 or Less	13	20.3
	19,000-30,000	32	50.0
	More than 30,000	19	29.7
	<b>Total</b>	64	100.0



*Source: Field Survey, 2015*

### **Interpretation**

Table 1.0 above shows that respondents in private secondary schools were mostly surveyed (53.1%) followed by those in public schools (46.9%). 51.6% (33) of the respondents were male, while 48.4% (31) were female. Furthermore, the table shows that most that were surveyed mostly were between the ages of 21 – 30. But in terms of religion, 48.4% (31) of the respondent were Christians, while 46.9% (30) were Muslims and about 4.7% (3) of the respondent practices other forms of religion.

Most of the respondents were married (59.4%), while 35.9% (23) of the respondents were single. In terms of ethnicity, 51.6% (33) of the respondents were Yoruba, 40.6% (26) were Igbo, 3.1% (2) were Hausa while 4.7% (3) fall into the category of other ethnic groups like Tapa, Isoko and Isobo. Meanwhile, the education section shows that 9.4% (6) of the respondent were O'Level holders, 59.4% (38) were OND/NCE/Diploma holders, 23.4% (15) were B.Sc./HND holders, and 3.1% (2) were postgraduate degree holders while other (4.7%) were held certain professional certifications.

Table 1.0 also depict that 40.6% (26) of the respondents have been in their profession between 1 – 5 years, while 43.8% (28) claimed 6 – 10 years and 15.6% (10) has been in the teaching profession for the period of 11 years or more. Lastly, 20.3% (20.3) earned 18,000 or less while half of the respondents (50.0%) earned 19,000 – 30,000 and 29.7% (19) earned more than 30,000.



**Availability of E-learning facilities in secondary schools**

**Table2.0**

Facilities	Private			Public		
	A	N.A	Total	A	N.A	Total
Educational Software	5 (14.7%)	29 (85.3%)	34 (100.0%)	1 (3.3%)	29 (96.7%)	30 (100.0%)
Laptop	10 (29.4%)	24 (70.6%)	34 (100.0%)	1 (3.3%)	29 (96.7%)	30 (100.0%)
Printer	15 (44.1%)	19 (55.9%)	34 (100.0%)	3 (10.0%)	27 (90.0%)	30 (100.0%)
Television	13 (38.2%)	21 (61.8%)	34 (100.0%)	- (0.0%)	30 (100.0%)	30 (100.0%)
Digital Camera	9 (26.5%)	25 (73.5%)	34 (100.0%)	- (0.0%)	30 (100.0%)	30 (100.0%)
Projector	7 (20.6%)	27 (79.4%)	34 (100.0%)	- (0.0%)	30 (100.0%)	30 (100.0%)
Internet Facility	6 (17.6%)	28 (82.4%)	34 (100.0%)	- (0.0%)	30 (100.0%)	30 (100.0%)
Interactive Boards	3 (8.8%)	31 (91.2%)	34 (100.0%)	- (0.0%)	30 (100.0%)	30 (100.0%)
Virtual Library	2 (5.9%)	32 (94.1%)	34 (100.0%)	- (0.0%)	30 (100.0%)	30 (100.0%)
Multimedia Facilities	8	26	34	1	29	30





	(23.5%)	(76.5%)	(100.0%)	(3.3%)	(96.7%)	(100.0%)
Photocopiers	11 (32.4%)	23 (67.6%)	34 (100.0%)	1 (3.3%)	29 (96.7%)	30 (100.0%)
Disc Player	6 (17.6%)	28 (82.4%)	34 (100.0%)	1 (3.3%)	29 (96.7%)	30 (100.0%)

*Source: Field Survey, 2015*

### Interpretation

Table 2.0 shows that 14.7% (5) of respondents in the private school claimed educational software are available in their school, while 3.3% (1) confirmed its availability in public schools. While 29.4% of the respondents had laptop in private school, only 3.3% (1) had in public. Furthermore, 38.2% (13), 26.5% (9), 20.6% (7), 17.6% (6), 8.8% (3) and 5.9% (2) of the respondent in private schools confirmed the availability of E-learning facilities such as television, digital camera, projector, Internet facility, interactive boards and virtual library respectively. However, none these are available in the public counterparts. The table also shows that 23.5% (8), 32.4% (11) and 17.6% (6) of the respondent confirmed the availability of multimedia facilities, photocopiers and disc player respectively in private school while just 3.3% (1) of the respondent confirmed the aforementioned in public schools.

### Level of teachers' application of E-learning facilities

**Table 3.0**

Questions	Freq.	Percent.
I use Instructional Materials in my teaching process.		
<b>Often</b>	8	12.5
<b>Sometimes</b>	18	28.1
<b>Never</b>	38	59.4
Total	64	100.0
I make use of projector when teaching.		
<b>Often</b>	2	3.1
<b>Sometimes</b>	16	25.0



<b>Never</b>	46	71.9
Total	64	100.0
I do produce educational media for my own lesson process		
<b>Often</b>	2	3.1
<b>Sometimes</b>	20	31.3
<b>Never</b>	42	65.6
Total	64	100.0
I use Computer/Laptop to teach my students		
<b>Often</b>	3	4.7
<b>Sometimes</b>	16	25.0
<b>Never</b>	45	70.3
Total	64	100.0
I do use radio and television programmes to teach my student		
<b>Often</b>	2	3.1
<b>Sometimes</b>	24	37.5
<b>Never</b>	38	59.4
Total	64	100.0
I make use of pictures to impart knowledge on my students		
<b>Often</b>	6	9.3
<b>Sometimes</b>	25	39.1
<b>Never</b>	33	51.6
Total	64	100.0
I make use of online articles/materials in teaching		



<b>Often</b>	2	3.2
<b>Sometimes</b>	31	48.4
<b>Never</b>	31	48.4
<b>Total</b>	64	100.0

*Source: Field Survey, 2015*

### **Interpretation**

Summarily, the table shows that very few of the respondents do adopt information and communication technologies in knowledge impartation in the surveyed secondary schools. Precisely, 40.6% (26) of the respondents do make use of instructional materials in the teaching process while 59.4% (38) has never made use of the aforementioned ICT's in teaching. This becomes worrisome as table 3.0 also shows that 71.9% (46), 65.6% (42) and 70.3% (45) of the respondent have never made use of projector, educational media and laptops/computer respectively in teaching. Furthermore, only about 40.6% (26) and 48.4% (31) of the respondents have made use of radio/television and pictures in imparting knowledge on students. However, the table shows that the larger percentage of the respondent (51.6%) does made use of online articles/materials in teaching.

### **Challenges of E-learning adoption**

**Table4.0**

<b>Questions</b>	<b>Freq.</b>	<b>Percent.</b>
<b>Shortage of relevant books has pose several challenges on the adoption of information and communication technologies in schools</b>		
Agree	31	48.4
Disagree	26	40.7
Undecided	7	10.9
<b>Total</b>	64	100.0
<b>Epileptic power supply has hindered the use of information and communication technologies in schools</b>		
Agree	46	71.9
Disagree	12	18.9
Undecided	6	9.4
<b>Total</b>	64	100.0



<b>Teachers' resistance to change has affected the use of information and communication technologies in schools</b>		
Agree	25	39.1
Disagree	14	21.8
Undecided	25	39.1
<b>Total</b>	<b>64</b>	<b>100.0</b>
<b>Inadequate funding is a challenge to information and communication technologies in secondary schools</b>		
Agree	36	56.3
Disagree	13	20.3
Undecided	15	23.4
<b>Total</b>	<b>64</b>	<b>100.0</b>
<b>Shortage of skilled personnel in information and communication technologies has hindered its usage in secondary schools</b>		
Agree	31	48.4
Disagree	19	29.7
Undecided	14	21.9
<b>Total</b>	<b>64</b>	<b>100.0</b>

*Source: Field Survey, 2015*

### Interpretation

Table 4.0 displays the challenges of E-learning adoption in Nigeria, specifically in selected Ogun state secondary schools. The table shows that 48.4% (31) of the respondent claimed that shortage of relevant books has posed several challenges on the adoption of ICT enabled teaching and learning process. These ranges from computer manuals on how to operate a tothat of the educational software's. 71.9% (46) argued that epileptic power supply has hindered the use of E-learning facilities. Though teacher's resistance to change might not be considered as a challenge for E-learning adoption, however, challenges such as funding (56.3%) and shortage of skill personnel (48.4%) has hindered the adoption of E-learning in secondary schools

### Test of Hypotheses

**Ho1** – There is no significant difference between E-learning facilities available in private and public secondary schools

**Table 5.0**

#### Independent Samples Test

Levene's Test  
for Equality of  
Variances

t-test for Equality of Means



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		F	Sig.	t	df	Sig. (2- tailed )	Mean Differenc e	Std. Error Differen ce	95% Confidence Interval of the Difference	
								Lower	Upper	
E- learn ing Faciliti es	Equal variances assumed	50.4 84	.000	4.461	62	.000	2.586	.580	1.427	3.745
	Equal variances not assumed			4.717	37.78 5	.000	2.586	.548	1.476	3.696

*Source: Field Survey, 2015*

### Interpretation

The ANOVA table above shows that the significance value for the tested hypothesis is 0.00 which is less than 0.05 (i.e.  $p < 0.05$ ). This means that there is a significant difference between E-learning facilities available in private and public secondary schools. Therefore, the null hypothesis is rejected in favour of the alternative.

**Ho2** – There is no significant relationship between availability of E-learning facilities and teachers application

**Table 6.0**

		Coefficients <sup>a</sup>				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.640	.721		9.207	.000
	E-learning Facilities	.771	.233	.387	3.304	.002

a. Dependent Variable: Teachers Application

*Source: Field Survey, 2015*

### Interpretation

Table 6.0 shows the regression analysis for the tested hypothesis. The significance value is 0.000 which is less than 0.05 level of confidence i.e.,  $P < 0.05$ . Therefore, there is a positive significant relationship between availability of E-learning facilities and teachers application. By extension, as these aforementioned facilities are readily made available, there will be a corresponding increase in teacher's application to teaching and learning process. Hence, the null hypothesis is rejected.



**Ho3** – There is no significant relationship between challenges of E-learning adoption and its application

**Table 7.0**

Model		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.289	2.186		6.078	.000
	challenges	-1.001	.266	-.431	-3.763	.000

a. Dependent Variable: Teachers Application

*Source: Field Survey, 2015*

**Interpretation**

The significance level for the tested hypothesis as displayed in the table below is 0.000 which is less than 0.05 (i.e.,  $P < 0.05$ ). This connotes that there is a negative significant relationship between Challenges of E-learning adoption and teachers application. In essence, the more the challenges of E-learning adoption prevail, the lesser teacher’s application of E-learning facilities application to teaching and learning. Therefore, the null hypothesis is rejected

**Discussion of Findings**

The study examined E-learning in Ogun state, specifically secondary schools in Ijebu-North Local Government, which comprises of both privately and publicly owned schools. This paper sets to: identify the E-learning facilities; examine the level of teachers’ application of E-learning facilities in teaching; and to examine the challenges facing the adoption of E-learning among privately and public owned secondary schools in Ago-Iwoye, Ogun State. The study found out that E-learning facilities such as educational software, laptop, printer, Television, digital , camera, projector, Internet facility, interactive boards, virtual library, multimedia facilities, photocopiers and disc player are not readily available in the surveyed secondary schools especially in the government owned secondary schools. This corroborates the findings of Global Information Technology Report (2005, Effiong,(2005); Jegede and Owolabi (2008); Seiden(2000); Uhaegbu, (2001) and Aboderin and Kumuyi (2013) who argued that there is shortage of E-learning tools. Furthermore, the study found out that there is a significant difference between E-learning facilities available in private and public secondary schools. By implication, this might be linked with the reason private school students are more intelligent and complete successfully than those In public schools since they are more exposed to the use of information and telecommunication technologies. Hence, this corroborates the assumptions of Constructivism Learning Theory which opined that experiences with the adjoining atmosphere play in student education. Precisely, the constructivism learning theory supports that students should be exposed to data, primary sources, and the ability to interact with other students so that they can learn from the incorporation of their experiences. The constructivism learning theory will allow children to, at an early age or a late age, develop the skills and confidence to analyze

the world around them, create solutions or support for developing issues, and then justify their words and actions, while encouraging those around them to do the same and respecting the differences in opinions for the contributions that they can make to the whole of the situation.

This study also found out that very few of the surveyed teachers apply the available E-learning facilities in teaching process, except for electronic articles. Furthermore, there was a positive significant relationship between availability of E-learning facilities and teachers application. Therefore, since there is a dearth of these facilities in the surveyed schools, it is right to say that teacher's application to teaching will be minimal.

Finally, the study found out that shortage of relevant books has posed several challenges on the adoption of ICT enabled teaching and learning process. This includes computer manuals amongst others. Furthermore, challenges such as epileptic power supply shortage of skill personnel have hindered the adoption of E-learning in secondary schools. This was similar to the findings of Adewole, Akinwale and Omokanye (2008), Aremu and Adediran (2011), Japheth and Cyprian (2013), Ikemenjima (2005) Jegede and Owolabi(2008) Adu, Eze, Salako, Nyangechi (2013) and Ajayi and Ekundayo (2009) who argued that there is dearth of trained teachers for E-learning, lack of facilities, infrastructures and equipment in Nigerian schools. More so, there was a negative significant relationship between challenges of E-learning adoption and teachers' application. Hence, the more the challenges faced by teachers as regards E-learning, the lesser their application to the teaching and learning process.

### **Conclusion and Recommendations**

E-learning means electronic learning. It is a computerized and digital type of education in which texts, audio or sound, pictures, images, graphics and videos can be simultaneously presented online to students. E-learning enhances curriculum implementation through the development and use of multimedia courseware relevant to teaching-learning situations. Students who use ICTs gain deeper understanding of complex topics and concepts and are more likely to recall information and use it to solve problems outside the classroom. Despite the roles ICT-driven instructional aids can play in education, Nigerian schools, especially the government owned, are yet to extensively avail and adopt them for learning process as a result of certain challenges. Owing to this, the following recommendations were made to government, school management and all other concerned bodies

1. More investments to be made to education especially in the aspect of information and telecommunication technologies. This will ensure adequate availability of E-learning facilities for teachers and student use alike.
2. A massive computer literacy training program is to be embarked upon nation-wide particularly for teachers and learners at secondary school level. This should be accomplished through in-service training of teachers, workshops, seminars, and conferences. This will enhance teacher's application of E-learning to teaching process. For students computer education should be a compulsory subject.



3. All classrooms in secondary schools in Nigeria should be connected to the Internet in order to enhance web-based instruction.
4. Videophone, teleconferencing and multimedia systems e.g. multimedia computers and multimedia projectors should be provided in adequate quantities for effective E-learning in secondary education.
5. Teachers in Nigeria should be motivated and encouraged to develop and use multimedia courseware and software relevant to teaching and learning.
6. Technologists and technicians should be employed to take care of Internet facilities and equipment and to carry out routine repairs for sustainability.
7. Standby generators and uninterruptable power supplies (UPS devices) are to be made available to tackle the problem of epileptic or inconsistent power supply in order to support the use of electronic equipment for E-learning.

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## **E-governance: The Portrait of Women in Nigeria.**

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### **Abstract**

*The use of electronics in every facet of life cannot be overemphasized. Contemporary governments and leaders use electronically controlled technology such as e-voting adoption and diffusion to improve democratic processes. The puzzle: can e-governance be democratic enough to benefit both male and female?. Relying on secondary findings, the paper concludes that, e-governance does not improve the participation of women in Nigerian democracy. The paper therefore recommends emphasis on good governance to foster democracy in Nigeria.*

**Keyword:** *e-governance, good governance, participation, democracy and leadership.*

### **Introduction**

Portraits are exceptionally malleable and can be used as a conduit for politics. Government economic development strategies, policies and development projects have taken men as central focus of development, enlisting women labour and production under male leadership and upsetting traditional systems of gender complement and co-operation. The high expectations of men as well as the cultural and political environment, which restricts female perceptions and aspirations as compared to male, paint a weak portrait of women.

The world used to be a global village but now with the advancement of information and communication technology it is becoming smaller and has become a global parlor. Governments have included ICT activities in governance. ICT activities today is so fast that even the said space of a parlor is so small, ideas, facts and information get to their destinations in no time. Communication is instantaneous that ICT interactions and connections is almost becoming telepathic. E-governance and Good- governance- pointed us to a tension on the theoretical plane. What is good governance and can e-governance be said to be good governance?. With these questions in mind, We are alerted to a shift that, good governance should and must increase



political participation of both genders as well as foster democracy. Nigeria is endeared with women with clout whose authority would be needed to move the nation forward. Against this backdrops, this paper stress that the portrait of women in Nigeria should be such that presents women as an articulation of perfect selfless virtue.

## **E-governance**

The use of information communication in all facets of life and all nations of the world is a trend that was accepted in the 1990s (Ake, 2015). E-governance as defined by scholars of different fields and perspective anchor on the aspect of electronic application of governance. E-governance is the application of Information and Communication Technology (ICT) for delivering government services, exchange of information communication transactions, integration of various stand-alone systems and service between Government-to-citizens (en.m.wikipedia.org/wiki/E-Gove). Electronic government is the application of information communication technologies by government to link networks and create the infrastructure through which the delivery of public services are channeled ( Dibie ,2014), It is also the use of ICT tools by government and their agencies.

According to UNESCO (2005) e-governance deals with the adaptation of new leadership style, new methods making decisions on politics and investment, new ways of making education available to citizens, new ways of listening and attending to citizens, as well as new ways of organizing and delivering information and services. The Reports of Economic.UNESCO (2005) E-Governance capacity Building. <http://portal.unesco.org> . Henry (2007) echoed this view “*e-governance is the application of ICT to governance. It involves the introduction of governments’ websites and portals (portals are integrated websites for targeted service) that furnish information, service and facilitate government process, for citizens, businesses and governments themselves*”.(139)

Scholars have espoused extensively that the use and improvement of ICTs has led to tremendous advancement and improved efficiency of government services, citizens’ lives and policy implementations. E-governance (Ikeanyiba, 2009) argues “can transform citizens’ service, provide access to information to empower citizens as well as enable their participation in government. He further stressed that e-governance can enhance citizens’ economic and social opportunities, political as well as people’s cultural attitudes and beliefs that are anti-progress”. E-governance will ensure that citizens are no longer passive consumer of services offered to them but also play an important role in deciding the kind of services they want as well as the structure that such services should take. (Sharma 2010)

E-governance is a political mechanism necessary in evaluating government performance in many developmental part of the world. E-government is a great tool in service delivery today. It is used in promoting active participatory democracy (Sunday 2014 and Heeks, 2002). In the same vein, it was observed that the use of technologies like internet, e-mail, twitter and You Tube, have

opened doors for more integrated technological efforts to connect citizens to government but they have not enabled citizens to get what they need from government.(Eneanya 2015:191)

E-government provides the following benefits:

1. Fast and easy access to government information and programs.
2. Transparency and accountability are said to have increased thereby reducing corruption.
3. Every individual irrespective of physical location and disability have access to information and bottleneck of the bureaucracy experience in government is removed.
4. It has enhanced the unification of related services. Accessibility should not be the only issue to be considered in determining e-government's success but issues like culture and gender responsiveness must also come to play. Backus (2001), Komar and Ongo'ndo (2007).

Three main groups are said to constitute the major relationship models in e-governance: Government -to- Citizens (G2C): Government-to Business (G2B): Government-to-Government (G2G) as well as back office processes and interactions within the entire government frame work. Whatever conceptualization we choose, e-government is the use of electronic technology not only to disseminate policy information but also to implement policies. This implies that e-government should facilitate and take governance to the doorstep of the common man irrespective educational background, tribe, nationality, socio-economic status, age, religion or gender,

## **The Portrait of Women in Nigeria**

A portrait is picturesque representation of an individual, usually the portrait mirrors the person. A portrait says a lot and several portraits have names and origin stories. As this suggested, writers, artists, editors, and publishers have used portraits as vehicles for commentary, debates and campaigns. Portraits almost always generate some kind of metaphorical resonance, The difference between the views of men and that of women is based on the cultural representations of both genders. These cultural traits are larger than life and cast a light on the familiar social world they are both part of and detached from, for instance the portraits of a man is seen with much machos. Masculinity is “a set of expectations that society deems appropriate for a male subject to exhibit (Gates 2006: 28) ,while Women are usually sexualized (Kennedy 2013).

A portrait offers multiple points of entry for political analysis, politics often expand and promote- Muscularity. These impressions vary according to time and place and this according to Connell is “hegemonic masculinity” This refers to a form masculinity that is culturally exalted over other forms of masculinity. “ It is the configuration of gender practice which embodies the currently accepted answer to the problem of the legitimacy of patriarchy”. (1995: 76-77) Proper masculine behavior includes morality, a trained body, self-discipline and semiotic distinction that

contrasts the symbolic difference between masculinity and feminine Mosse (1996). This impression gives men an edge over women when it comes to politics. When it comes to who should lead, people tend to align with those presented as being capable or believed to be the best. Murray Edelman (1996), and Lewis (2012) are of the view that, this approach could be taken further, to explore how they constitute as well as reflect contemporary political culture.

The relationship between a candidate and his or her political foe is the product of campaign funding and personal likability or as appeal to the press, and for every political action, there is an equal and opposite reaction. This explains why the likability of women is not as much as that of men; this has to do with the way women are presented as home managers and not managers of nations.

Brains (2014) proposed three new laws of politics also known by some scholars as “The Craig Leonard Brains Law of Unintended Political Consequences”, which he referred to as general Laws.

- (a) *Political objects in motion tend to stay in motion.* The first law of politics recognizes political inertia. That is, the natural tendency for things to keep being done the way they are currently done.
- (b) The relationship between a candidate and his or her political force (fp) is a product of campaign funding (m) and personal likability or appeal to the press (1).
- (c) *For every political action, there is an equal and opposite reaction* (pp126). The third law suggests that the unintended consequences of well-meaning political actions may aggravate the original problem-even creating new, sometimes worse, problems. The severity of the unintended consequences may sometimes seem to be directly proportional to how tragic or shocking the situation and policy response is.

My point of departure is on the second law. This relationship may be simply expressed:  $fp = m \times 1$ . Political force (fp) or “capital” may be used by one to get elected, and second, to effect legislation after taking office. In politics this force is linked to electoral mandates. An example was given of George W. Bush when in 2004 he was given the mandate as he was reelected. “Let me put it to you this way, I earned capital in the campaign, political capital, and now intend to spend it” (Stevenson 2004 cited in Brain, 2014 :125). Political capital is part of broader strategy to generate legitimacy, build political capital, and gain Leverage. “Permanent Campaign” Seeks to maximize political force while seeking office, as well as to stay in office. (Brain, 2014:126)

Mirroring the movement of the discussion, I agree with Amadiume (2000) that to present African women simply as destitute and in need of charity is doing injustice to women with a rich history of authentic leadership skills, economic enterprise and strategies of resistance to oppression. It is this rich legacy which has enabled African women to make historical contributions to anti-colonial resistance movements. (pp21). Inferiority does not come from

being a particular gender, the assumption that women are born inferior is, obviously absurd. In line with this view, there is need for more equality, diversity or fluidity of identities to stop portraying the art of governance as a superhero with “*Hegemonic Masculinity*”. There is at least one catch when we talk of Democracy and that is good governance.

### **Good Governance**

The main aim of ensuring the application of e-governance in the affairs of the state is to promote good governance, which is generally characterized by equality as it relates to democratic participation, transparency and accountability in the various sectors of a nation’s economy, (Adeyemo (2013). There can be no democratic governance without equal participation bearing in mind that, democratic governance centres on three principles: inclusive participation, responsive institutions and United Nations principles (human rights, anti-corruption, gender etc. In an ideal Democracy, an active and engaged citizen is one propelled by a commitment to serve others and to serve the community (Denhardt and Denhardt, 2011:55). *Citizens, as noted by Eneanya (2015:129) are bearers of rights and duties within the context of a wider community.* He also added that the concept of citizenship is described as being active, involved and public spirited. Good governance is said to rest on the pillar of knowledge and recognition of this set of knowledge by decision- makers. Digitalization of this entire set of knowledge within a network which connects both the leaders and the led , leads to easy access to knowledge thereby making way for digital governance. (Eneanya 2015). Although ICT affect the way citizens interact and participate in governance, the contributions of capable leaders to bring about sustainable democracy depend on the fulfillment of their contributions as leaders. Kane and Patapan 2012. In other words ICTs is a good avenue for government not only to improve its services to the citizenry but to bring about good governance as highlighted above. Simply put, citizenship participation will have more impact when it is combined with good leadership. Citizens and Leaders see ruling as on the whole, both intrinsically appealing and a noble service or sacrifice deserving of recompense in the form of honor Lorch (2010).

The government of today is said to be more interested in managing power than governance Candidates spend more time, resources and energy on getting into office than they spend to bring governance to the citizens. There is a failure of government, when, where government should come in and take decisions, it has become the place for privatization of governance. Politics is not seen as a means to serve but as a game of power where the most shredded player wins and stays a “winner”, only the successful use of power as a means to bring about actual benefits for the citizen is good governance. Xenophon (2014: 83) acquiesced when he wrote”*The desire for office or honor is a desire for recognition of one’s virtue*”. Those assumed to possess the desire and virtue of leadership search seriously for an opportunity to put their virtue into action. This desperate desire is what Xenophon’ referred to as” *Political Ambition*” (2014:91)

Political ambition is a trait or passion necessary to democratic health. “Political ambition is the desire for honor, for leadership, for power, for self- deification, the desire to exploit, to sacrifice, to benefit one’s friends. To benefit the father land, the desire to rule or rather the desire to serve. Also on the issue of leadership, Tocqueville, (2000) asserted, of necessity is competent Leadership, and the desire(s) that fuel it especially as regards to maintenance of democratic institutions and productive deliberation. Political ambition can be bad and good at different times depending on the intentions and situation. It could also be dangerous especially in a constitutional democracy where it may threaten to overstep or subvert the political institutions that preserve ordered liberty Lincoln (2013) .Ambition may be a threat to democracy with the presupposition that certain individuals can and should ascend to lead or rule the other citizens-it seems to deny popular sovereignty and human equality. (Faulkner 2007).

It is pertinent to state that, being a Leader requires actually receiving the office of Leadership and exercising its power, one does not earn the title of Leadership simply by learning the art of Leadership. In other words men cannot be said to be good leaders simply because they have had the opportunity to lead before or are presently in leadership position. By focusing only on the possession of the “art” of Leadership, one should not set aside or ignore the exercise of the art, especially the presence of the desire to exercise it, and to exercise it well. Meaning the desire, and not merely the ability, to be “a good leader”, but there is also the issue of the quality of the Leadership which consists especially in the desire to be a good Leader. Governance is good governance when we have equal opportunity and participation. However, the issue in Nigeria is that, governance does not bring about equal gender participation. Scholars over the years have asked if governance is a women issue?, this brings patriarchy into the democratic space.

### **Concluding Remarks**

Although, Nigeria is said to have the fastest growing information and communication technology market in African, yet the country is still ranked low in the provision of e-governance services to its citizens (Akomaye 2015:1).The provision of e-governance services is not the only area where Nigeria is ranked low. Nigeria is also ranked low in the area of good governance with regard to equal political participation, accountability and transparency. This is acceptable bearing in mind that, E- governance has not been felt by the common citizen in the rural sector.

Citizens and stakeholders, by having access to new communication channels still do not have ‘louder’ voices in decision and public policy-making processes in Nigeria.

The structure of government should be addressed; the situation where the Federal government collects revenues and distribute to the states should be changed. Some other means of generating revenues for and in the state should not only be made but such revenues be left for the states to manage. This will take care of the national cake slogan and struggle..

Governance is an act and not a movie to be watched on national television. Nigerians should vote for policies and not for flamboyant images on TV. Citizens should know what they want and go for it. Leadership selection process needs a new approach, people of integrity, who desire to serve the people and not to serve their pocket or be served, should be voted into offices thereby



put a stop to monetization of politics. I would like to end with this note, Nigerian women are the key to the progress of the nation and no contrary view or representation is accepted. A change of mindset will produce a new portrait of women in Nigeria.

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**ICTS AS AN INSTRUMENT OF INCLUSIVITY IN IDP CAMPS:  
RESEARCH IN PROGRESS**

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**Abstract**

*This is a research in progress on the role of information and communication technologies (ICTs) in reducing the political alienation of internally displaced persons (IDPs) living in some of the IDPs camps in North-East Nigeria. Using Gwoza/Bama Camp as a case study, the paper investigates the use of ICTs in the camp and how this reduces the feeling of alienation and fosters inclusion as a basic criterion of good governance. Specifically, it explores the link between the use of ICTs and its relevance in inclusion as an aspect of good governance. Early results indicate that while IDPs use ICTs, mostly the cellphone, to communicate with their family members outside the camp, government and its agents have not yet leveraged the communication advantages of ICTs to provide governance to IDPs.*

**Keywords:** *Governance, ICTs, inclusion, IDPs*

**Introduction**

Wars, conflicts and rise in terrorism in recent years have led to a surge in the number of people who have become refugees in their own countries, or internally displaced persons (IDPs). The prominent definition of IDPs is found in the United Nations Guiding Principles on Internal Displacement and the Kampala Convention to mean, “Persons or groups of persons who have been forced or obliged to flee or leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or home-made disasters, and who have not crossed an internationally recognized State border” (UNOCHA, 2003: 2; AU & UN, 2009: 3).

About 38.2 million people are internally displaced globally, according to the United Nations High Commission for Refugees (UNHCR). Five countries – Congo, Iraq, Nigeria, South Sudan and Syria – account for 60% of displacement worldwide (IDMC, 2015). Indeed, at the end of 2014, Nigeria had 3.3 million IDPs, earning the dubious distinction of having the most number of IDPs in Africa (Global Overview, 2014). At the end of 2015, the number had dropped to 2,152,000 (IDMC, 2016), a figure also confirmed by the National Emergency Management Agency (NEMA) in early 2016 (Idagu, 2016). It is either the UNCHR number for 2014 was inaccurate or many IDPs have since returned home. In any case even if the smaller number is the accurate representation of the situation, it still represents too many Nigerians who have been forced to leave their home to live as refugees in their own country. The surge in IDPs in the country is obviously the outcome of the increasing assaults of the Boko Haram crisis in North Eastern Nigeria. This explains why many of the IDPs in Nigeria are in this geopolitical zones. While there are many unofficial IDPs, there are at least ten official ones in the area (Express News, 2016).

Sudden displacement is a tragedy on many levels. People do not just lose their homes but in many cases, they lose their families as well. There have been reports of situations where children show up in IDP camps without their parents and not knowing where they came from. There are also cases where parents have been separated from their children in the sudden flight from their home. But beyond the physical outcome of displacement are psychological and emotional devastations as people often feel disoriented, and experience loss of identity and belonging. Many IDPs also experience discrimination from the people of the communities in which their camps are based and some may become victimized all over again by the host communities or those who have been assigned to provide for their needs in the camps. According a report, many victims of conflict “are suffering from acute mental distress resulting from sexual, psychological and physical violence suffered in captivity” (News Express, 2016). Rape, according to reports “is increasingly becoming one of the defining features of the tragedy ... conditions in the camps are “atrocious with many of the refugees living in crowded and unhealthy environment, where everything, from water to food, is in short supply” (Idagu, 2016).

Much has been written about the horrible conditions in which IDPs live and suggestions proffered on how to better manage the camp. Of course, the best solution would be for the IDPs to return home and not have to worry about insecurity in their homes. A displaced person ceases to be termed displaced if the following conditions have been met: integration into host communities, resettlement in a new environment, self-sufficiency above dependency. It seems though that internal displacement is fast becoming a permanent issue even when the conditions

in many of the IDP camps are inhumane. What is the government doing to ensure resettlement and inclusive governance? Has the government failed in its responsibility to protect the lives and properties of its citizens, first in their homes and then in the IDP camps? These are important questions but the focus of this paper is on the political alienation encountered by IDPs and the role of information and communication technologies (ICTs) in creating a sense of inclusiveness and belonging. During the 2015 elections, politicians made much ado about getting IDPs to obtain the permanent voter's card so they could participate in the general elections. Beyond that, what other ways do IDPs feel connected to their host communities and to the political processes in their country – of which they are still bona fide citizens? For this research, we visited an IDP on the outskirts of Abuja, Gwoza/Bama, to examine the conditions in which the residents live. The goal was to understand how ICTs mediate their daily existence and the extent to which the technologies connect them to the larger political processes in ways that might reduce their sense of alienation. In proposing that the opposite of alienation is inclusion, one of the eight characteristics of good governance, we argue that the state of being displaced from one's home should deny a citizen the right to good governance by his or her government. Can ICTs facilitate that process?

The term governance can be used in different contexts to mean national governance, international governance, local governance and corporate governance. However, for the purpose of this study, governance here stands for national governance. There is the general assumption that ICT enables good governance. In fact, researchers have argued that ICT plays a pivotal role in the development of poor countries (Sahay & Avgerou, 2002; Mbarika et al, 2005). Many countries, particularly those in the South, have become to consider e-governance as a good strategy for delivery better governance which in turn provides the conducive environment for economies to thrive. E-governance is the application of information gradually taking its place in the world, with several societies having access to varying forms of communication technologies. Inclusion is a salient aspect of every nation's post-conflict transformation/reformation agenda especially in the social dynamics of an internally displaced persons' (IDP) camps. Esser (2005) reiterates that every post-war development strategy must encompass the socio-economic reintegration of IDPs as a necessary factor and we argue that ICTs are critical to that process.

### **Governance and ICT**

The term governance was formerly limited to economic processes and institutions, but has gradually assumed stronger stance with democracy. "Good governance" was first used in the 1989 World Bank Report on Sub-Saharan Africa to describe the corrupt governments and



crippled legal systems that exist (World Bank, 1989). A major hindrance to the development of countries in Africa has been the existence of ineffective and poor governance systems (Mbarika, Meso, Musa, Kah, & Amougou, 2009; Thomas, 2010). Policy documents of the African Development Bank (ADB) and the United Nations Development Programme (UNDP) define governance as the process by which power is exercised in managing the affairs of a nation (ADB, 1999) through the exercise of the administrative, political and economic authority (UNDP, 1997; IFAD, 1999). Although there is no generally accepted definition of good governance, the term as defined by international organizations differs slightly. A governance system is termed good if the political processes such as elections, legal procedures, and institutions of the country are transparent. If appropriate systems and institutions exist through which the populace can air their views and interact with duty bearers, such a country can be said to be in an atmosphere of good governance. Therefore, the United Nations defines good governance as the effective, efficient and lasting promotion of the principles of equity, participation, pluralism, transparency, accountability and the rule of law, to ensure free and fair elections, fair laws and the interpretation of such (UN, n.d). Good governance has eight characteristics: accountability, transparency, participatory, equitable and inclusive, effectiveness and efficiency, consensus-oriented, responsiveness and strictly observes the rule of law (“Eight Elements, n.d; UNESCAP, 2009). For the purpose of this paper, our focus is on inclusion and how ICTs can facilitate the process.

ICTs have emerged to challenge existing models of development and power; its relevance in enhancing and lessening duplication of activities of those involved in humanitarian aid cannot be overemphasized (Selian, 2002). It is the knowledge of its relevance that necessitated UN Office for the Coordination of Humanitarian Affairs (OCHA) to make the call for a reformed standard of information systems that will guarantee rapid response to emergencies (Jones, 2002). The censorship of press materials and the restrictions on information accessible to the public by some governments (US Department of State, 2000), for example China, goes to show the relevance of ICTs in enabling good governance. Arguments have arisen as to how the use of ICTs enables good governance. The introduction and expansion of radio, TV and radio networks, the use of the press in political campaigns to gain supporters, online public opinion sites and the increasing ownership/access to personal computers reflect the significance of ICTs in improving conditions necessary for good governance (Batista, 2003). Giffard (2003, p. 19) states that, “the only way to pry open the eyes of the international community to lesser known situations is to ensure that reliable information reaches it.” ICTs have strengthened the networking and collaboration of NGOs across national borders, and serving as a platform where corrupt leaders, bad governments are exposed and called to be accountable, and unlawful practices are brought to public notice

(Selian, 2002). Results from a statistical analysis conducted in 163 countries to determine the significance of communication networks/technologies to good governance and other principles (human rights and democracy) as prerequisites to the attainment of the Millennium Development Goals (MDGs) revealed that a country with improved communication infrastructure will be attuned to the opinions of its citizenry and the protection of their rights (ibid; Mudashiru, 2016). Another study in 1993 in 141 countries reveals a strong relationship between democratisation and ICT, linking its influence in economic development (Pippa, 2001). According to Aldous, “Mass communication, in a word, is neither good nor bad; it is simply a force, and like any other force, it can be used either well or ill. Used in one way, the press, the radio and the cinema are indispensable to the survival of democracy” (Huxley, 1958).

**Table 1: Functional interactivity of ICTs**

Medium		Functional Interactivity					Relative degree of functional interactivity
		Multi-directional	Participant Control	Supports exchange of roles	Possibility of Feedback	Nature of communication	
Networked electronic media	Telephone	Yes	Yes	Yes	Immediate	Synchronous or asynchronous	High
	Radio Communication	Yes	Yes	Yes	Immediate	Synchronous	High
	World Wide Web	Yes	Yes	Yes	Immediate or delayed	Synchronous	High
	Email	Yes	Yes	Yes	Immediate or delayed	Synchronous	High
Networked mass media	National TV	No	No	No	Limited, delayed	Synchronous	Low
	Local TV	Limited	Limited	Limited	Limited	Synchronous	Low/ medium
	National Radio	No	No	No	Limited, delayed	Synchronous	Low
	Local Radio	Limited	Limited	Limited	Limited	Synchronous	Low/ medium

Source: Model of Interactivity (Robin, 2001).

Table 1 shows the function of networked electronic media (email, telephone, Internet and radio communication) in multiple processes of communication (ibid). This supports the notion that ICTs, in empowering the exchange of information between persons indirectly support a fair dispersion of participation, thereby, informing change. The presence and use of ICTs has the

tendency to enliven citizen participation and give them a voice while eliminating bottlenecks like unnecessary mediations (Batista, 2003). Multiple interdependent factors like security, challenges to peace, migration, diseases, dissolve boundaries created by nations (Held, McGrew, Goldblatt & Peratton, 1999). This inadvertently shows how displacement has increasingly called for global effort in tackling this issue.

Thus, ICT influences the political process. ICT empowers disadvantaged groups like IDPs with the power to influence decisions that affect them. Existing structures do not necessarily translate as inclusivity for all disadvantaged groups. However, able representation with policymakers and key stakeholders largely defines their ‘say’ in the political process and issues bothering them.

Studies in well-governed countries have shown that when the disadvantaged in the society are allowed to speak and assured the protection of their human rights, violence is less likely to occur, and national policies that are inclusive are birthed (UN, n.d).

Citizen participation is an important aspect of the governance processes (Batista, 2003) in which leaders and citizens are in constant interaction towards the actualisation of a common goal: the satisfaction of the needs of the populace/community. Governance is one of the most important areas affected by ICTs (Selian, 2002) because all digital communication networks help shape policy making activities and the dissemination of information. For instance, the technologies contribute to bringing about salient changes in the electoral systems through channels such as online advocacy and lobbying, public opinion and polls, thereby leading to the direct participation of voters. Information about various topics ranging from human rights, politics and justice is accessible. The Kampala Convention categorically states the voting rights of IDPs.

### **Theoretical Rational and Research framework**

The Impoverishment and Risk Reconstruction Model (IRR) model was developed by Michael Cernea in the 1990s. His studies and research in several countries found impoverishment and human rights violation to be the after-effect of displacement. Cernea (1995b) proposes that impoverishment arising from displacement is inevitable, but it can be prevented. It aids preventive planning process.

Displacement results in loss of “physical and man-made capital” (Cernea, 1995) as people lose their homes and farms. Fleeing their homes disrupts their lives and businesses. He argues that displacement encourages the rise of certain lapses – landlessness, joblessness, homelessness, marginalisation, food insecurity, increased morbidity and mortality, social disarticulation and loss of access to property. If these lapses are not rectified in due time, the outcome will be

catastrophic. Evidence shows that impoverishment in camps/camp-like sites for displaced persons can lead to the birth of new terrorist acts (Global Terrorism Index, 2015). Consequently, the IRR model serves as an instrument to initiate resettlement plans and monitor their impact.

### **Discussion and Analysis**

The IDPs, particularly in the North-East, underwent the registration process for the 2015 elections. Polling booths were also mounted in several camps and host communities in the North-East. Only 70,000 registered IDPs were accounted for (Audu, 2015) out of the 2.1 million IDPs in the country. According to the Electoral Commissioner for Borno State, Samuel Usman, out of 1,838,514 registered voters, 70,485 were IDPs (ibid), which puts it at 3.83% of the total number of registered voters in Borno State. Voting was conducted in designated camps and host communities in Borno, Adamawa and Yobe States to introduce an inclusive process that enabled IDPs to exercise their civic rights. At Gwoza/Bama Camp), not all the IDPs were registered for the 2015 elections, according to the IDPs chairman, Ibrahim Amudu (Oral Interview, March 27, 2016). Registered voters were selected at random with the ratio of men to women voters at 5:1.

From the interviews conducted with IDPs in the camp, the use of ICTs is very minimal. Few people have cell phones and there is no Internet connectivity. The few people who have data plans on their phones can access such services; however, the high cost of data plans makes this almost impossible. Those who have cell phones use them for access to social media to connect with family members outside the camps. If ICTs reduce the sense of alienation, it is certainly something that the IDPs do for themselves rather than an intervention from the government.

### **Conclusion**

Good governance is comprised of varying intricate systems that require more than one method to explain its key dynamics. The Sustainable Development Goal 16 (SDG 16) states the promotion of just, peaceful and inclusive societies, access to justice for all and the building of effective accountable institutions at all levels (UN, n.d). Therefore, the examination of ICTs in this light yields a few key lessons towards creating better societies by ensuring political participation at all levels.

A salient truth about ICTs lies in their relevance in empowering those who wield them by ensuring accountability, enhancing transparency and cooperation among organizations and nation states. However, it is pertinent to understand the relationship between the influencers of ICTs – which is the empowerment of the public.

ICTs have undoubtedly proven to be effective tools in information dissemination regarding violations of human rights and dysfunctional governments. However, the reaction of the international community to the claims of these information determines their reliability in fostering an equitable and just society.

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## ISSUES OF CONCERN IN THE ADOPTION OF TECHNOLOGIES IN PUBLIC SECTOR GOVERNANCE IN NIGERIA

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### Abstract

*This paper aims to put forward the importance of e-governance in achieving sustainable grassroots development in Nigeria. The emergence of information communication technology has provided opportunity for easy and free flow of government policies and programmes within the global village. Information communication technology is a necessary political tools set out to reconcile traditional barrier of distance in the management of public affairs. Today, e-governance has been implemented in Europe and other western countries for sustainable development through the application and adoption of open Access Information Communication Technology (OAICT) designed to enhance social service delivery at (up to) the grassroots level. E-governance involves new styles of leadership, new ways of debating and deciding policy and investment, new ways of accessing education, new ways of listening to citizens and new ways of organizing and delivering information and services. The idea of adopting ICTs is to move beyond the passive information giving to active citizen involvement in the decision-making process. The accessibility of local citizens to their elected representatives and basic social services through the provision of information communication technology enhances effective communication between the government and the governed, while it generally consider as a wider concept than e-government, since it can bring about a change in the way the citizens relate to governments and vis vasa; it creates open plain ground for the citizens to receive feedbacks from the appropriate local government channel. This study concludes that e-governance ensures effective and efficient service delivery and enhance citizen's participation in local affairs. It therefore recommends that federal government should make policy that will facilitate and fast-track the adoption of ICT and training of local government personnel in the art of e-governance through which sustainable grassroots development could be accomplished in Nigeria.*

**Key words:** *e-governance, e-government, information communication technology, grassroots development, local government, democracy, Nigeria.*

## Introduction

E-governance has consequently become an accepted methodology involving the use of Information Technology in improving communication between the government and the governed, it also improves transparency in government, providing information speedily to all citizens, improving administration efficiency and improving public services provisions such as adequate and timely transportation, un-interrupted power supply, good and quality health to save lives, adequate supply of water, security and municipal services. As explained by Radhakrishnana, 2006. Application of e-governance has been an (important) potent instrument in disseminating information, doing consultation, enhancing citizen's participation in the government, sending feedback to the citizens, monitoring and evaluating government projects and making government accountable and be transparent in its total political engagements. E-governance has become a necessary political mechanism in evaluating government performance in many developed nations of the world, for (example) including United Kingdom, U.S.A, Netherland, Germany etc; it enhances citizen's ability to have access to the basic programmes of government while it brings about openness in performing public functions. The scope of e-governance revolves around e-registration, e-participation, e-taxation, e-mobilization, e-education, e-service delivery, e-feedback, e-policing, e-panning, e-debate and analyses of public financial statements. It also creates awareness for the general populace in relation to activities such as immunization, vaccination, civic education, time for collection of waste, identification of community development association in every neighborhood, keeping adequate security through neighborhood watch and making suggestions for the betterment of government programmes.

Danfulani (2013) opined e-governance came as a result of revolution in information and communication technology (ICT) which finds expression in digital technologies like personal computers, the internet, mobile phone, and different electronic applications. A confluence of these technologies eased the flow of information, its accessibility and delivery. This came with numerous advantages because citizens were connected with government, government became more efficient and robust, cost of governance and transaction were scaled down, and transparency was enhanced.

Information communications technologies has been described as the tools for changing the world values and making our society a knowledge base environment where everything is done electronically. Electronic tools can significantly improve the serviced and information flows from administrations to their constituencies. Communication among administrations and citizens and businesses can be enhanced as ICTs offer unique opportunities for the re-use and exploitation of public sector information within the emerging digital economy which in turn create vast economic opportunities for the country at large (Hassan and Willie 2010). Electronic governance (e-governance) is the use of information and communication technologies (ICT) for

the planning, implementation and monitoring of government programmes, projects and activities (Crowley, 2008).

### **Objective**

E-governance objective is to engage, enable and empower the citizen (UNESCO 2005). It stands for electronic-governance and the word “electronic” denotes the use of technology in the system of governance, if it is made more explanatory, e-governances the application of information and communication technology (ICT) for assisting the government for efficient and meaningful delivery of government services (Daily news August 2, 2013). Governance refers to the exercise of political, economic and administrative authority in the management of a country’s affairs, including citizens’ articulation of their interests and exercise of their legal rights and obligations.

- E-governance may be understood as the performance for this governance via the electronic medium in order to facilitate an efficient, speedy and transparent process of disseminating information to the public, and other agencies for performing government administration activities.
- E-governance is generally considered s a wider concept than e-government since it can bring about a change in the way how citizens relate to governments and to each other.
- E-government can bring forth new concepts of citizenship, both in terms of citizen needs and responsibilities.

### **Why Introduce E-government?**

Purpose of implementing e-governance is to enhance good governance. Good governance is generally characterized by even participation, transparency and accountability, the recent advances in communication technologies and the internet provide opportunities to transform the relationship between governments and citizens in a new way, thus contributing to the achievement of good governance goals. For example, in the last general election in Nigeria, results are electronically released to prevent manipulation.

The fields of implementation of e-governance are:

- E-democracy implies greater and more active citizens’ participation and involvement enabled by ICTs in the decision-making process
- E-administration refers to improving of government processes and of the internal workings of the public sector with new ICT executed information processes.
- E-services refers to improved delivery of public services to citizens, some examples of interactive services are: requests for public documents, requests for legal documents and certificates issuing permits and licenses.



### **Difference between E-government and E-governance**

Both terms are treated to be the same, however, there is some difference between the two. "E-government" is the use of the ICTs in public administration - combined with organizational change and new skills - to improve public services and democratic processes and to strengthen support to public. The problem in this definition to be congruence definition of e-governance is that there is no provision for governance of ICTs. As a matter of fact, the governance of ICTs requires most probably a substantial increase in regulation and policy-making capabilities, with all the expertise and opinion-shaping processes along the various social stakeholders of these concerns. So, the perspective of the e-governance is "the use of the technologies that both help governing and have to be governed". The Public-Private Partnership (PPP) based e-governance projects are hugely successful in India. United Telecoms Limited known as UTL is a major player in India on PPP based e-governance projects. Each project had mammoth statewide area networks in these states.

Many countries are looking forward to a corruption-free government. E-government is one-way communication protocol whereas e-governance is two-way communication protocol. The essence of e-governance is to reach the beneficiary and ensure that the services intended to reach the desired individual has been met with. There should be an auto-response to support the essence of e-governance, whereby the Government realizes the efficacy of its governance. E-governance is by the governed, for the governed and of the governed.

Establishing the identity of the end beneficiary is a challenge in all citizen-centric services. Statistical information published by governments and world bodies does not always reveal the facts. The best form of e-governance cuts down on unwanted interference of too many layers while delivering governmental services. It depends on good infrastructural setup with the support of local processes and parameters for governments to reach their citizens or end beneficiaries. Budget for planning, development and growth can be derived from well laid out e-governance systems

### **Concerns in the Adoption of Technologies in Public Sector**

A full switch to Government to Customer e-Governance will cost a large amount of money in development and implementation. In addition, Government agencies do not always engage citizens in the development of their e-Gov services or accept feedback. Customers identified the following barriers to Government to Customer (G2C) e-Governance: not everyone has Internet access, especially in rural or low income areas, G2C technology can be problematic for citizens who lack computing skills. Some G2C sites have technology requirements (such as browser requirements and plug-ins) that won't allow access to certain services, language barriers, the necessity for an e-mail address to access certain services, and a lack of privacy. Hence the need

to identify the relationship between government, the citizen, and the government employees as they are affected by information communication technology.

### **Government to Citizen**

The goal of Government to Citizen (Customer) (G2C) e-Governance is to offer a variety of ICT services to citizens in an efficient and economical manner, and to strengthen the relationship between government and citizens using technology (so the citizens are referred to here as customer). There are several methods of Government to citizen (Customer) e-Governance. One is the two-way communication, which allows citizens access to instant message directly with public administrators, and made the remote electronic votes (electronic voting) and instant opinion voting possible. For instance, citizens don't have to be at the parliament before making contributions to the government policies, the use of electronic media tools help extensively for the govern to check the government. Its bi-directional. Another way is making payment of services easy and possible, such as power and water utilities, which can be completed online or over the phone. There is currently the use of contactless card payment system, and also using your smart phone to make payment. This reduces carrying cash around reduces corruption since money don't have to change hands. Mundane services such as name or address changes, applying for services or grants, or transferring existing services are more convenient and no longer have to be completed face to face.

### **Government to Employees**

E-Governance to Employee partnership (G2E) is one of four main primary interactions in the delivery model of E-Governance. It is the relationship between online tools, sources, and articles that help employees maintain communication with the government and their own companies. E-Governance relationship with Employees allows new learning technology in one simple place as the computer. Documents can now be stored and shared with other colleagues online.<sup>[9]</sup> E-governance makes it possible for employees to become paperless and makes it easy for employees to send important documents back and forth to colleagues all over the world instead of having to print out these records or fax G2E services also include software for maintaining personal information and records of employees. Some of the benefits of G2E expansion include:

E-Payroll- maintaining the online sources to view paychecks, pay stubs, pay bills, and keep records for tax information. E-benefits- be able to look up what benefits an employee is receiving and what benefits they have a right to.

E-training- allows for new and current employees to regularly maintain the training they have through the development of new technology and to allow new employees to train and learn over new materials in one convenient location. E-learning is another way to keep employees informed on the important materials they need to know through the use of visuals, animation, videos, etc. It is usually a computer based learning tool, although not always. It is also a way for employees to learn at their own pace (distance learning) . Although, it can be instructor lead.

Maintaining records of personal information- Allows the system to keep all records in one easy location to update with every single bit of information that is relevant to a personal file. Examples being social security numbers, tax information, current address, and other information.

Government-to-employees (abbreviated G2E) is the online interactions through instantaneous communication tools between government units and their employees. G2E is one out of the four primary delivery models of e-Government. G2E is an effective way to provide E-learning to the employees, bring them together and to promote knowledge sharing among them.<sup>[15]</sup> It also gives employees the possibility of accessing information in regard to compensation and benefit policies, training and learning opportunities and civil rights laws. G2E services also includes software for maintaining personnel information and records of employees.

G2E is adopted in many countries including the United States, Hong Kong and New Zealand.

### **Government to Government**

From the start of 1990s e-commerce and e-product, there had been rampant integration of e-forms to government administrative processes. Governments have now tried to use this technique to cut down on waste (people and money).

Many governments around the world have gradually turned to Internet Technologies (IT) in an effort to keep up with today's data demands, e.g. economy, health, education, security, and population control need adequate and updated data. Historically, many governments in this sphere have only been reactive but up until recently there has been a more proactive approach in developing comparable services such things as e-commerce and e-business.

Not only does e-government introduce a new form of record keeping, it also continues to become more interactive to better the process of delivering services and promoting constituency participation. The performances of such government is now expected to increase more than ever by becoming efficient and reducing the time it takes to complete their set objectives and goals. For examples paying utilities bills, tickets, and applying for permits. So far, the biggest concern is accessibility to Internet technologies for the average citizen. In an effort to help, administrations should try to aid those who do not have the skills to fully participate in this new medium of governance as far as Nigeria society is concern, where IT literacy is still not understood by majority of the populace, especially now as e-government is progressing to more e-governance terms in our present age as a Nation.

### **Conclusion**

Implementing e-governance systems in Nigeria can provide the possibility of closer interactions between government to public services, government to citizens and public services to citizens. An overhaul of our structure is now required as every pre-existing sub-entity must now merge under one concept of e-government. As a result, Public

Policy has also to change to include the emerging use the Internet. Many governments such as Canada's have begun to invest in developing new mediums of communication of issues and information through virtual communication and participation. In practice this has led to several responses and adaptations by interest groups, activist, and lobbying groups. This new medium has changed the way the polis interacts with people and government; Nigeria can tap into this new development for better policing in the country.

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**RELEVANCE, IMPACT AND EFFECTS OF SOCIAL MEDIA ON  
ACADEMIC PERFORMANCES OF BUSINESS EDUCATION STUDENTS'  
IN FCE, ABEOKUTA, OGUN STATE**

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**Abstract**

*This study examined the relevance and effects of social media on the academic performance of Business Education students of Federal College of Education, Abeokuta, Nigeria. The population of the study consisted of 620 regular students of the Business Education Department for 2015/2016 academic session. The descriptive survey research design was adopted for the study while the sample for the study comprised of 300 students and 16 lecturers. The simple random sampling technique was used to select 100 students per level (100, 200 and 300 levels) while all the 16 lecturers in the Department were selected. The instrument for the study used for data collection was a self-designed questionnaire tagged 'Relevance and Effects of Social Media on Academic Performance of Business Education Students Questionnaire (RESMAPBESQ). The instrument was validated by experts in test and measurement from the faculty of Education, Olabisi Onabanjo University, Ago-Iwoye, Nigeria. The test-retest method and Pearson product moment correlation were used to determine the reliability coefficient of the instrument which was 0.78.*

**Keywords: Social Media, Academic Performances, Business Education.**

**Introduction**

Social media is a means of interacting and staying connected with friends, family members and other acquaintances. Social media is defined as “forms of electronic communication, such as website for social networking through which users create online communities to share information, ideas, personal messages, photographs, videos and other various media” (Merriam-Webster Inc., 2011) but Cohen (2009) opined that social media is an outlet for broadcasting. He further stated that it can be used to facilitate social networking or one can network by leveraging social media. Social media is recently becoming education facilitating tools. Pearson Learning Solution (2013) reported that 59% of educators interviewed agreed this interactive nature of e-learning and other mobile technologies create a better learning environment for students while

70% believe that the use of e-learning and mobile technologies has increased the teacher and students' communication.

Vervaat (2014) opined that since the development of web 2.0 there has been massive increase in web based traffic which could be called 'Social Networking' which initially was networking between individuals but has recently developed into a major marketing resource allowing networking between organisations on the web. By developing social media platforms such as Facebook, LinkedIn, Twitter etc., business, social and educational organisations now use networking for the purpose of marketing, teaching and learning, public relations etc. to communicate across the globe.

The emergence of social media has forced educators to think differently about the way learning occurs. Students and practitioners alike are using new technologies to connect with peers/colleagues, share ideas, resources and experiences for fulfilling their curriculum and extracurricular activities.

This technological invention has been appreciated as well as condemned by various researchers and authors. For example, it was pointed out by Gupta (2014), McCulloh, McIntosh E. and Barret (2011), Hangreves and Shirley (2009) and McLaughlin & Talbert (2006) that social networking sites allow teachers adequate time to learn about and share effective practices. It can be used as avenue that breaks isolation and initiate collaboration in teacher development as well as provide a platform for teachers where they can share their reflection of success as well as classroom experience.

Nevertheless, other authors and researchers look at social networking from another angle, for example, Murabolghaseni & Lahard (2013) are of the opinion that there is need to guide students in the use of social media especially Facebook which connects students with each other and provide forum for discussion on issues raised by the instructor on the learner-teacher instruction.

Business Education is all about preparing students for the world of Business. It is that aspect of vocational education which encompasses of those educational processes involving the study of techniques, related sciences, and acquisition of practical skills, attitudes and knowledge related to occupational and economic life. (Ibe & Nwosu 2014). Academic performance may be defined as the academic achievement and lesson outcome (Akinyele 2015). Before going into the research report, there is need to mention some commonly used social media platform used by students:

1. Facebook
2. My Space
3. YouTube
4. Flickr
5. Blogs

6. Twitter
7. Delicious
8. Google+
9. E-mail
10. Whatsapp
11. Eskimi
12. Badoo
13. Skype
14. 2go
15. Blackberry Messenger (BBM)
16. LinkedIn
17. Instagram
18. WeChat
19. Imo
20. SnapChat etc.

### **Statement of the problem**

As good as social media platforms are to teaching and learning of Business Education courses, the researcher noticed that students are becoming more irresponsible with the way they surf the net especially during lectures and they are expected to be studying for tests and examinations. Inasmuch as lecturers are trying to educate, moderate and guide students on the proper use of social media, many of them are not prioritising their use of time rightly. Socialising, releasing of views, photographs, videos etc has become the primary duties of many students. Most of them don't even use the platform for academic purpose. They waste time expected to be used for studying on the platform of social media. The researcher based the above decided to find out the positive and negative effects of social media on the academic performance of Business Education students.

### **Purpose of the Study**

The research was carried out to determine:

1. How involved are Business Education students are in the use of social media?
2. Whether or not Business Education students use social media platforms for academic purposes
3. How well students are able to prioritise their activities and time in such a way that their academics activities are not suffering at the expense of social media surfing
4. Whether or not social media platform are useful or wasteful in relation to Business Education Students' time.
5. How much of social media platforms are used by lecturers
6. How much of the social media platforms are used by lecturers to transmit knowledge as well as get feedback from students.

**Research Questions**

The following Research Questions were used for the study.

1. How frequently do Business Education students use social media?
2. To what extent do Business Education students use social media for academic purposes?
3. Do Business Education Students accumulate knowledge through the use of social media?

**Method**

In this study, Survey Design was adopted to elicit information from Respondents. The population was 620 students of the three levels in Business Education Department, Federal College of Education, Abeokuta, Ogun State and 16 lecturers. Simple Random Sampling was used to draw 300 students and all the 16 lecturers were used for the study. Questionnaire was the instrument for data collection. The questionnaire has some items based on the Five Research Questions.

The whole 316 questionnaires were recovered as they were given out and retrieved during lectures for students and on a particular day in the office for lecturers. The Analytical Methods used for the study are the Mean and Analysis of Covariance. The Mean was used to answer Research Questions while Z-Test was used for the two null hypotheses. In testing the hypotheses, where z-calculated of the paired test is less than z-critical, then there is no significant difference and the hypotheses will be accepted.

**Results**

Research Question (R<sub>Q1</sub>) : How frequently do Business Education students use social media?

Table 1: Frequency of social media usage by Business Education students

<b>Social Media</b>	<b>X</b>	<b>S.D</b>	<b>Decision</b>
Facebook	3.38	.53	Very frequent
My Space	0.24	.38	Never frequent
YouTube	2.88	.36	Sometimes frequent
Flicker	0.16	.56	Never frequent
Blogs	1.2	.53	Rarely frequent
Twitter	4	.56	Very frequent
Delicious	0.16	.42	Never frequent
Google+	3.6	.49	Very frequent
E-mail	4	.38	Very frequent
Whatsapp	4	.38	Very frequent
Eskimi	2.08	.47	Rarely frequent
Badoo	1.44	.28	Never
Skype	2.88	.32	Sometimes
2go	2.8	.35	Sometimes
BBM	3.92	.54	Very frequent



LinkedIn	1.12	.40	Never
Instagram	1.44	.39	Never
WeChat	1.12	.36	Never
Imo	0.24	.41	Never
SnapChat	0.48	.32	Never

Grand mean 2.08

Decision Rule : 2.50

Source : Author's fieldwork

Table 1 showed that Facebook, Youtube, Twitter, Google+, E-mail, Whatsapp, Skype, 2go and BBM are frequently used by Business Education students while other social media platforms are not frequently used. The grand mean of 2.08 revealed that Business Education students are sometimes frequent in the overall usage of social media platforms.

Research Question (R<sub>Q2</sub>) : To what extent do Business Education students use social media for academic purposes?

Table 2: Extent of social media usage for academic purposes by Business Education students

Social Media	X	S.D	Decision
Facebook	3.76	.28	Very High
My Space	0.24	.73	Very Low
YouTube	2.8	.22	High
Flicker	1.44	.68	Very Low
Blogs	0.96	.76	Very Low
Twitter	1.12	.84	Very Low
Delicious	0.16	1.02	Very Low
Google+	3.44	1.26	High
E-mail	3.92	1.01	Very High
Whatsapp	3.68	1.08	Very High
Eskimi	1.12	.84	Very Low
Badoo	0.88	.87	Very Low
Skype	1.52	.36	Low
2go	2.88	1.13	High
BBM	1.92	.62	Low
LinkedIn	1.2	1.12	Very Low
Instagram	1.52	.62	Low
WeChat	0.24	1.17	Very Low
Imo	0.16	.72	Very Low
SnapChat	0.16	.53	Very Low

Grand mean : 1.66

Decision Rule 2.50



Source: Author's fieldwork

Table 2 indicated that Business Education students use social media for academic purposes to a low extent.

Research Question (R<sub>Q3</sub>): To what extent do lecturers utilize social media platforms to transmit knowledge and get feedback from students?

Table 3: Utilization of social media by lecturers

S/N	Statement	Mean	Std. Dev.	Decision
1	Most students spend more time on social media than library	2.94	1.01	Agreed
2	Most students waste time on social media	3	0.58	Agreed
3	Social media can be used for accumulation of knowledge	2.87	0.72	Agreed
4	My students use social media to acquire knowledge	2.81	0.45	Agreed
5	Social media groups had been to teach my students	2	0.12	Disagreed
6	My students have been submitting well researched assignments through social media	2	0.14	Disagreed
7	I use at least five social media personally	2.81	1.05	Agreed
8	I learn a lot through social media	2.75	0.63	Agreed
9	Without the social media, my students will perform better	2.19	0.55	Disagreed
10	Most students cannot do without the social media	2.94	0.47	Agreed

Grand mean : 2.63

Decision rule : 2.50

From Table 3, the lecturers agreed that social media can be used as tools for impartation of knowledge but ironically most of them do not use social media platforms to teach their courses.

**Hypothesis One:** There is no significant difference in the ways male and female Business Education students perceive the positive impact of social media in academic performance.

Table 4: Z-test analysis of male and female Business Education students' perception of the impact of social media on academic performance.

Source of Variation	N	X	SD	df	Z-cal	Z-Crit
Male	130	53.1	15.55			
				298	0.65	1.96
Female	170	47.2	11.22			

X Not significant

Since Z-cal (0.65) is less than Z-Crit (1.96), the null hypothesis was accepted. This implies that male and female Business Education students did not differ significantly in the ways they perceived the impact of social media on academic performance.

**Hypothesis Two:** There is no significant difference in the how the lecturers and students of Business Education perceive the positive impacts of social media on academic performance of students.

Table 5: Z-Test Analysis of lecturers and students of Business Education’s perception of positive impact of social media on academic performance

Source of Variation	N	x	SD	df	Z-cal	Z-Crit
Lecturers	16	46.5	12.55			
				286	0.62	1.64
Students	300	43.5	11.42			

\*Not significant

Since Z- calculated (0.62) is less than Z-Crit (1.64)

### Discussion of Findings

The results of Table 1 show that out of 20 media used for this research work; ten (10) social media platforms were frequently used by students while the remaining ten (10) are either not visited at all or not frequently used. This is in agreement with Global Digital Statistics (2014) which stated that 7.1 billion people of the world, 35% of them have access to the internet, while 26% of them are active users of social media and platform for various reasons. Also, this is also in agreement with findings of Micaiah (2014) who stated that, research and population opinion show that only five social media are the most used in the education sector.

Results of Table 2 do not really use social media platforms for academic purposes. This is in agreement with Kuppuswamy S. and Narayan P (2010) who observed that social networks grab the attention and concentration of students and divert it to non-educational, unethical and inappropriate actions such as useless chatting.

Results on Table 3 show that most lecturers do not use social media platform to teach their courses. This means though, the lecturers believe that social media platforms can be used to enhance academic performance, they do not really use it to teach. This is in agreement with the Comprehensive Report carried out by Alder Consulting in January 2014, which stated that no individual or institution in education used the social media effectively (Micaiah 2014). It is also in agreement with Fitzgerald (2012) who observed that Business Education Lecturers use social media either for entertainment or personal chatting. Majority of the lecturers opined that social networks are doing more harm than favour to the students.

Table 4 and 5 were analysis of the two hypotheses in the study. Table 4 reported that both male female Business Education students believe that social media platform can be used to enhance academic performance. Also, Table 5 shows that both lectures and students are of the opinion that social media platform can be used to enhance improved academic performances.

### **Conclusion**

Based on the research findings, the researcher hereby concludes that both lectures and students use only some of the available social media platforms for personal use, entertainment and social usage. Social media platforms are useful and effective tools in enhancing teaching and learning of Business Education courses if properly and adequately used by both lectures and students. There is need for Business Educators and learners to embrace the use of social media for teaching and learning. This will enhance easier transmission of systematic and organised programme of instruction to transmission of knowledge, skills, ideas, aptitude and technical know-how for office use.

### **Recommendations**

The following recommendations were deduced from study.

- ❖ Business Education lecturers and students should be given orientation workshops and teachings on how to utilize social media platforms for effective learning and teaching.
- ❖ The use of social media platforms should be encouraged by creating enabling environment.
- ❖ Access to Wifi and other Network Links should be restricted and controlled especially during lecture hours to enable students' full attention during lectures.

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## INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) AND TEACHERS' JOB PERFORMANCE IN SECONDARY SCHOOLS IN CROSS RIVER STATE

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### **Abstract**

*Information and communication processes, have for decades become an integral part of life as no individual, society, state, nation and even organization can exist or survive without information and communication. Information is said to be the life wire that connects an individual to the world around him. The introduction of ICT teaching methods in schools is because traditional teaching methods do not provide students with skills and knowledge needed in today's world, especially with global competitiveness and technological advancement. However, it is imperative to note that, the use of ICT facilities has a functional role in the teaching-learning process in secondary schools and should be given due attention in Cross River State secondary education sector, which is what has informed this study. The objective of this study was to investigate into ICT availability and utilization in the teaching-learning process in secondary schools in Cross River State and establish how that increases the job performance of teachers. The research design adopted for this study was correlation design which deals with discovering or clarifying relationships among variables. The two research questions provided as a guide for this study were analyzed using descriptive statistical method involving the use of mean, percentages and frequency counts while inferential statistics-Pearson Product Moment Correlation Coefficient was used to test the two hypotheses. The findings on ICT and teachers' job performance indicates that majority of the teachers agreed that integration of ICT to teaching has improved their job performance. However, non-availability of adequate ICT facilities prevented their optimum usage in teaching. The study drew the conclusion that training of teachers on the use of ICT as an important and emerging pedagogy in teaching is imperative. This is aimed at making the teachers effective in the use of ICT gadgets and related facilities for teaching. Premised on the findings of the study, recommendations were made that government should sponsor teachers to attend refresher courses such as conferences, seminars and workshops to enable the teachers to update their knowledge, skills and competences in ICT.*

**Key Words:** *ICT, usage, performance, quality of education, competitiveness*



**e-Governance Conference**

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## **Introduction**

The emergence of Information and Communication Technology (ICT) has brought a paradigm shift in educational contents in schools especially at the lower levels being the primary and secondary education. In the past, pupils of primary schools and students of secondary schools merely knew what ICT was. In some schools, computers were mere graphical pictures in books used as illustrations. But the introduction of ICT as a core subject of study in schools has changed a lot about teaching-learning process and has affected positively, both the students and teachers. Educational programmes and their contents according to Etuk (2006), are closely scrutinized to eliminate the extraneous and very theoretical items from the curriculum of every level of education. This implies that there are some modifications to the curriculum contents of schools, especially secondary schools with the emergence of ICT and this review is to enable secondary schools produce students who will graduate with ICT skills to meet the manpower needs of the society. Owing to this, the old analogue method of teaching delivery has to be replaced with a more flexible and simplified method of teaching as made easy by ICT. According to Akpan and Ita (2015), teachers as instructors and facilitators of knowledge at the secondary level of education must upgrade in scope, knowledge and application of ICT to teaching, to match this shift if they desire to record high job performance. Adegbe mile (2012) averred that, the emergence of information and communication technology (ICT) has totally revolutionalized the way we access, process, store, retrieve and disseminate information within organizations or across the globe. This assertion, makes information and communication technology a force that has changed many aspects of the human way of life.

Information and communication technology as a process, plays a pivotal role in the teaching-learning situation. In the classroom, knowledge and skills of ICT could be used to enhance quality and effective instructional delivery. It could be used to prepare lesson plan, collect and analyze students' achievement, (Onuma, 2007). Teachers are indeed an indispensable factors in the school system. Quite frankly, there cannot be the process of teaching in schools without teachers. Hence, commitment to their job for high performance and productivity is determined by how motivated they are to work. Another reason for high job performance by teachers is the availability of facilities and conducive work environment to boost their morale for work. The introduction of ICT for teaching in schools, has made it pertinent for all teachers in secondary schools in Cross River State to be ICT compliant and this can be made possible through effective training and retraining on the use of ICT facilities for teaching. Job performance of teachers in secondary schools in relation to the use of ICT facilities for teaching can record high propensity if properly utilized.

Most importantly, it is pertinent to put forward that there have been a number of factors ranging from the absence of ICT facilities in schools, underutilization of available ones, poor maintenance, lack of teachers with knowledge of usage, shortage of facilities to complement number of students, gender bias etc, impeding the application of ICT in teaching-learning to a

greater percentage in secondary schools in Cross River State. Other factors include lack of funding to support the purchase of technology needed for teaching-learning processes, lack of training among established teaching practitioners, lack of motivation and need among teachers to adopt ICT methods for teaching. With the efforts of the government in the last few years, the acceptance and adoption of ICT in the teaching-learning process in secondary schools in Cross River State has received an increase though not optimally and has witnessed to a large extent, changes in the way education is planned and delivered resulting from the opportunities and affordance of ICT.

The use of new technologies for the transfer of knowledge and information was defined in the Millennium Development Goals as a means towards equality and development at national and global levels. Knowledge of ICT in relation to teaching-learning situations in secondary schools is considered to be quite significant especially when teachers' performance on the job is expected to rate high. Researchers in Akpan, and Ita (2015) have revealed that knowledge acquired through ICT training for teachers enhanced effective teaching and learning in schools. Teachers in secondary schools require a niche in other to step up their teaching job performance using ICT. To achieve this common objective, the needed facilities must be available at all times, teachers must be willing to adapt to this new method of teaching, they must be trained on how to fit into this new dimension of teaching and there must be an enabling and most conducive environment for teaching-learning processes. Off course, teaching-learning cannot be said to effectively take place if not in a conducive environment.

According to Bassey and Archibong (2001) teachers don't merely put up a teaching show as a way of ensuring monthly earning rather than contributing to the overall success of the student. This implies that lack of knowledge and skills on the use of ICT facilities and tools for teaching in secondary schools in the 21st century would make the teacher incompetent and uninformed thereby being unable to deliver on his teaching job to achieve the overarching goals of education in the technological era. Furthermore, it will militate against effective teaching-learning in schools. Mallow's opinion in Olokoba, Abdullahi and Omosidi (2014) in a study on assessment of secondary school teachers' use of ICT, found that teachers lack skills and knowledge in the use of computer and software and the result is lack of confidence in utilizing ICT tools for communication as applied to teaching in the classroom. Consequently, the use of information and communication technology for teaching has been a serious challenge to teachers in secondary schools, especially in Cross River State as they are somewhat reluctant to adopt this digitalized way of teaching too quickly. The introduction of ICT teaching methods in schools is because traditional teaching methods do not provide students with the skills and knowledge needed in today's world especially with global competitiveness and technological advancement. To some extent, many teachers feel really intimidated by students' knowledge of ICT tools that they do not possess. This makes it difficult for many teachers especially in public schools to adapt to ICT and to apply it to teaching. However, it is imperative to note that, the use of ICT



facilities has a functional role in the teaching-learning process in schools and should be given prominence in Cross River State secondary education sector.

The purpose of this study was to investigate into ICT availability and utilization in the teaching-learning process in secondary schools in Cross River State and how it influences and improves the job performance of teachers. Specifically, the study sought to;

1. Investigate the availability of ICT facilities and tools for use by teachers in secondary schools in Cross River State.
2. Find out to what extent ICT has influenced the job performance of teachers in Cross River State.

To guide this study in line with the purpose for which the research is carried out, the following research questions were posed.

1. To what extent does availability of ICT facilities influence teachers' job performance and aid in their teaching delivery?
2. What significant influence does ICT have on the job performance of teachers in secondary schools in Cross River State?

To answer the research questions posed and in pursuance of the purpose of this study, the following hypotheses were formulated to guide the study.

1. Availability of ICT facilities does not significantly relate to teachers' job performance.
2. ICT does not have any significant influence on the job performance of teachers in secondary schools in Cross River State.

## **Literature Review**

Information and Communication Technology (ICT) has in more than a decade now received acceptance by many developing nations as against their initial attitude towards it. ICT has recently been of great interest to individuals, organizations, sectors of economies, government agencies and Parastatals and also becoming a significant research area for many scholars in the global scene. One of the reasons for this significant explosion is that, ICT has greatly changed the face of many parameters adopted by individuals and organization to solving their complex problems. The school as a part of education sector and sub-system of the society, is a beneficiary of this development. For most European countries, the use of ICT, in education and training, has become a priority. However, very few have achieved progress (Maroufi, 2010). According to UNESCO (2002), information and communication technology (ICT) may be regarded as the combination of 'Informatics technology' with other related technology, specifically communication technology.

Researchers (Sharma, 2003; Sanyal, 2001; Bhattacharya and Sharma, 2007) in Noor-Ul-Amin (year unknown) stated that various kinds of ICT products available and having relevance to education, such as teleconferencing, email, audio conferencing, television lessons, radio broadcasts, interactive radio counseling, interactive voice response system, audiocassettes and CD ROMs etc., have been used in education for different purposes. This implies that ICT has a cardinal role to play in shaping the teaching-learning process in schools with the availability for use of the various ICT facilities. Findings by Maroufi, (2010) revealed that many teachers use ICT to support traditional learning methods, for example, information retrieval in which students are 'passive learners of knowledge' instead of 'active producers, able to take part in the learning process.'

### **Availability of ICT facilities in schools**

In every formal organization, resources ranging from human, financial, physical and materials are required for the smooth running of those organizations. The quality of these resources, will to a great extent determine the quality and level of outcome from those organizations. The educational organization where the school is categorized is not an exception. A well equipped school with 21<sup>st</sup> century technology gadgets is bound to excel in leaps and bounds as not just the students will become quality end products, teachers also will be effective in their jobs and performance will be high. These ICT facilities in schools are pivotal in the teaching-learning process. Ogunaju's opinion in Uko (2001) maintains that for effective teaching-learning situations, school facilities and educational goals should be viewed to be closely interwoven and interdependent. This assertion states the fact that quality of education outcome depends on the quality of teaching-learning situations and the quality of teaching-learning output depends on the quality and availability of infrastructures in the school environment.

Adegbemile (2012) in his research found that the level of availability of ICT facilities in schools for use by teachers is conspicuously low. These findings agreed with Ibukun (2003) who affirmed that there is no amount of capital injection into educational system without a change of altitude, better skill acquisition and over commitment on the part of the teaching force that can produce the much desired change in school performance. This may be attributed to the fact that substantial numbers of our schools still lack ICT infrastructure and facilities, while our teachers lack the necessary skills required for the application in our classrooms (Okoloba et al, 2014).

When ICT tools are widely used at all levels of education in developed countries, schools are yet to take maximum advantage of ICT in developing countries. Ajayi (2008) noted that 'today's schools are organized around yesterday's ideal, yesterday's needs, and yesterday's resources (and they were not even doing very well yesterday)'. Mallow in Okoloba et al. (2014) in a study on assessment of secondary school teachers' use of ICT, found that teachers lack skills and knowledge in the use of computer and software applications, and the result is lack of confidence in utilizing ICT tools for communication. This in earnest can be attributed to the non-availability of ICT facilities for use by teachers. Hence, makes it difficult to develop some level of



confidence. This adversely affects their job performance in terms of delivery. More so, besides using these ICT facilities for teaching, the teachers who have access to them especially the internet can use it to update their knowledge on their subject areas thereby increasing personal development which is instrumental to high job performance.

There have been series of reviews on the concept of job satisfaction which is a key factor to job performance. Some employees may naturally dislike their jobs; have little or no passion for what they are doing as job roles in organizations where they work. Same is applicable in the teaching profession as many take up to teaching as a result of unemployment and or absence of what is termed “preferred jobs”. Hence, there is high degree of lack of commitment to the job which further leads to low job performance. However, with the presence of motivating factors, such negatively and lackadaisical attitude showing employees can begin to derive some level of satisfaction which definitely will metamorphose to high job performance. Peretemode (1996) adds that job performance is determined by the worker’s level of participation in the day to day running of organization. There are some factors which contribute to teacher’s performance.

### **ICT and Teachers’ Job Performance**

The existence of ICT enables teachers to transform their teaching practices, given a set of enabling conditions. One puzzling question is, does teachers’ pedagogical practices and reasoning influence their uses of ICT? According to Trucano (2005), this question is answered to prove that integrating ICT into teaching pedagogy has relationship with job performance and records positive impacts on students’ achievement. Teacher capacity building therefore, is the training of teachers as to equip them with the skills and knowledge required for enhancing their teaching output. Capacity building for teachers through ICT integration will enable and equip teachers that are ill-equipped in the use of ICT tools for teaching and learning to be able to do so. The integration process will entail planning, curriculum review patterned to suit ICT integration, development of software that is compatible with the curriculum designed, training of curriculum experts, training of ICT resource person’s, training of lecturers in teacher training institutes in the use of ICT, creation of awareness to all the stakeholders of education (UNESCO, 2003).

Many research works have provided evidences that many teachers use ICT to support innovative education. New technologies that provide a good fit with existing practices, such as interactive whiteboards, are first to be embedded, but others, like video conferencing, digital video and virtual learning environments are now being incorporated, providing evidence of ongoing learning by the workforce. Therefore, ICT can improve teaching by enhancing prior knowledge and introducing new ways for teaching-learning. Transforming teaching is more difficult to achieve as changes that take full advantage of ICT will only happen slowly over time, and only if teachers continue to experiment with new approaches (Maroufi, 2010).

In addition, Nyenwe and Ishikaku (2012) have found that schools with adequate ICT resources achieve better results than those that are not so well-equipped. According to them, there appears to be a direct correlation to well-appointed ICT schools and a significant improvement on learners' performances. More so, many teachers are convinced that educational achievements of students are due to high ICT utilization. Many students consider ICT tools very helpful for completing assignments. Also, teachers are attuned to the fact that ICT enables students with special needs or difficulties to achieve and grow as well (UNESCO, 2004). Additionally, students often assume more responsibilities when they use ICT, such as organizing their work through digital portfolios or projects. This is in agreement with the findings of Okoloba et al. (2014) which showed that ICT has a significant impact on teachers and the teaching processes and it increases their confidence and job performance.

## **Research Methodology**

### **Research Design**

The design adopted for the study was correlation design which deals with discovering or clarifying relationship among variables. The design was appropriate for the study because the researchers were interested in finding out the effect of Information and Communication Technology (ICT) on Teachers' Job Performance with the view of establishing the relationship between the two variables. The target population of the study were teachers of Public and Private Secondary Schools in the 18 Local Government Areas of Cross River State.

Purposive sampling technique was used to sample 150 teachers from the selected public and private secondary schools in the study area. This gave a total sample of 150 teachers as respondents. The instrument for data collection was a 20 item questionnaire designed by the researcher and titled "Information and Communication Technology and Teachers' Job Performance Questionnaire (ICTATJPQ)." The instrument consisted of two sections. Section A had items that sought personal and demographic data from the respondents such as gender, age, teaching experiences, qualification etc. Section B was a 4-point Likert type scale which comprised of 20 items rated as Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). In the 4-point Likert scale, all positively worded items were scored 4 points for Strongly Agree, 3 points for Agree, 2 points for Disagree and 1 point for Strongly Disagree, while for negatively worded items, the scoring technique was reversed.

### **Data Analysis**

The data was used to validate the research questions. In achieving this purpose, descriptive statistical method involving the use of Mean, Percentage and Frequency counts was used to analyse the data while inferential statistics – Pearson product moment correlation was used to test hypotheses.

**Table 1: Frequency and Percentage Distribution of Response on Availability of ICT Facilities in Secondary Schools**

S/N	Item Questions	SA F	A F	D F	SD F
1.	There is a reliable internet source in the school for research	9 (6%)	71 (47.3%)	50 (33.3%)	20 (13.3%)
2.	There is a standard source of electricity for ICT facilities	32 (21.3%)	88 (58.7%)	17 (11.3%)	13 (8.7%)
3.	There are well equipped ICT classrooms in the school	2 (1.3%)	3 (2.0%)	106 (70.7%)	39 (26.0%)
4.	There are standard ICT facilities for teaching in the school	2 (1.3%)	5 (3.3%)	80 (53.3%)	42 (63%)
5.	The ICT facilities in the school are well maintained	4 (2.7%)	42 (28.0%)	70 (46.7%)	34 (22.7%)

Table 1 shows the availability of ICT facilities in secondary schools. Result from the table indicates that there are no adequate ICT facilities in most public schools in Cross River State.

**Table 2: Frequency and Percentage Distribution of Response on ICT and Teachers' Job Performance in Secondary Schools**

S/N	Item Questions	SA F	A F	D F	SD F
1	Using ICT makes teaching more interesting and increases my job performance	12 (8.0%)	66 (44)	68 (45.3)	4 (2.7%)
2	ICT has added value to my Job Performance	34 (22.7%)	94 (62.7%)	19 (12.7%)	3 (2%)
3	There are available ICT facilities for me to use in teaching	2 (1.3%)	22 (14.7%)	90 (60%)	36 (24%)
4	I am thinking of quitting my job because I cannot use ICT	1 (.7%)	3 (2.0)	43 (28.7%)	103 (69.1%)

The results analyzed in table 2 shows that ICT has added value to teachers' job performance in their respective schools.

### Test of Hypotheses

Research Hypothesis 1: Availability of ICT facilities will not be significantly related to teachers' job performance.

**Table 3: Pearson Product Moment Correlation, Mean and Standard Deviation between availability of ICT facilities and Teacher's Job Performance**

Variable	N	Mean	SD	r-cal	p-value
Availability of ICT facilities	150	2.184	0.4863		
				0.310	0.000
Teachers Performance	150	2.216	0.3147		

Correlation ( $r$ ) is significant at  $P < 0.5$

The result from table 3 above shows a significant relationship between availability of ICT facilities and teachers job performance in secondary schools. This was based on the result of analysis which produced a calculated  $r$  value of 0.310\* at  $p=0.05$ , thus the null hypothesis that states that there will be no significant relationship between availability of ICT facilities and teachers job performance was rejected while the alternate hypothesis was accepted. This hypothesis was tested using items 3 and 4 in table one.

Research Hypothesis 2: ICT does not have any significant influence on the job performance of teachers in secondary schools in Cross River State.

**Table 4: Pearson Product Moment Correlation, Mean and Standard Deviation between influence of ICT and Teacher's Job Performance**

Variable	N	Mean	SD	r-cal	p-value
ICT	150	2.548	0.4108		
				0.461	0.000
Teachers Performance	150	2.216	0.3146		

Correlation ( $r$ ) is significant at  $P < 0.5$

The result from table 4 above shows a significant influence of ICT on teachers' job performance in secondary schools in Cross River State. This was based on the result of analysis which produced a calculated  $r$  value of  $0.461^*$  at  $p=0.000$ , thus the null hypothesis which states that ICT does not have any significant influence on the job performance of teachers was rejected while the alternate hypothesis was accepted. This hypothesis was tested using items 1 and 2 in table two.

### **Discussion of Findings**

Hypothesis one revealed that availability of ICT facilities for teaching, significantly relates to teachers job performance in secondary schools. This implies that for teachers to record high job performance, there has to be a reliable internet source for use in their respective schools. Similarly, there is also the need for adequate electricity supply to enable the functionality, accessibility and reliability of the internet source in schools. The findings also revealed that there is high need for well equipped ICT classrooms in secondary schools with standard facilities to aid teaching-learning. The findings also revealed the need for adopting a maintenance culture that will cater for the facilities when provided. This however portrays the fact that whether there are standard ICT facilities available for teaching-learning, if they are not well maintained, will face-out and become obsolete and irrelevant. But the findings also clearly revealed that availability of ICT facilities in secondary schools in Cross River State records a low result. This confirms the findings of Adegbe mile (2012) in his research that the level of availability of ICT facilities in schools for use by teachers is conspicuously low. The implication of this is that education as a vibrant sector is seen as trailing behind other sectors in terms of availability of ICT facilities for use. This may be attributed to the fact that substantial number of our schools still lacks ICT infrastructures and facilities, while our teachers lack the necessary skills required for the application in our classrooms (Okoloba et al, 2014).

Hypothesis two from the results and findings of the study revealed that there is a significant influence of ICT on teachers' job performance in secondary schools in Cross River State. This implies that ICT can positively influence a teacher and also increases his job performance if well harnessed. The integration of ICT into the teaching-learning process is a welcomed development in the education system especially for developing countries like Nigeria. This is to enable her meet global standards and necessary ongoing reforms in education sector, both at the state, national and international levels. This also agrees with the research findings by Ndukwe 2006 and Adegbe mile 2012 which affirmed that ICT has simplified education through the application of electronic media, internet etc. According to them, the production and introduction of calculators and computers in the education system worldwide has helped in simplifying teaching-learning in schools, thereby promoting national stability and economic survival.

Findings by Maroufi, (2010) revealed that many teachers use ICT to support traditional learning methods. For example, information retrieval in which students are 'passive learners of knowledge' instead of 'active producers, able to take part in the learning process.' Information



Technology occupies an important position in schools. This position is valued based on the relevance of ICT to education in this technology age. This agreeably increases teachers' job performance. ICT has really improved teachers attitude and commitment to their jobs thereby bringing to bear a high degree of performance. However, it would not be an exaggeration to say that ICT has recorded significant contributions to changes in teaching-learning practices, school change and innovations, and community services (Adegbemile, 2012).

### **Conclusion**

Based on the findings of this study, it was concluded that availability of ICT facilities in secondary schools will to a high extent increase teachers' job satisfaction as this will make them enjoy their job more. Another key findings of this study which has helped in drawing inference in this study is that availability of ICT facilities for teaching will boost the morale of teachers and make them have a competitive spirit among their contemporaries in developed countries where ICT has been used in teaching-learning for decades.

Another significant findings from this study on ICT and teachers' job performance indicates that majority of the teachers agreed that integration of ICT to teaching has improved their job performance. However, the findings revealed that non availability of adequate ICT facilities impedes teachers from enjoying the use of this new approach to teaching. This led to a good number of them indicating their desire to quit their current jobs, perhaps to a more ICT compliant school where these facilities are readily available for teaching-learning process.

### **Recommendations**

Based on the findings of this study and the conclusions drawn, the following recommendations are considered plausible and pivotal in order to improve teaching-learning process in secondary schools in Cross River State and beyond. Also, specific measures must be put in place to ensure teachers' compliance in adapting to ICT usage in the teaching profession, especially in this digital age. The recommendations made are:

1. That government should take funding of education especially on ICT as a key priority at the national and state and local government levels.
2. Government should also equip schools with all necessary ICT facilities and equipment to ensure ICT compliant classrooms, computer laboratories, and digital libraries for research as well as functional and reliable internet services needed for the smooth implementation of an enabling learning environment. A situation where both the teachers and the students will benefit from.
3. That measure should be put in place to ensure routine maintenance and security of all ICT facilities and equipment provided in schools to avoid vandalism, theft or under-utilization of such facilities.

4. It is also recommended that teachers should be made to have full access to ICT facilities, as this will increase their usage and integration in teaching. This in turn will influence and improve their job performance.

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***Political Participation and Democracy in the Digital Age***



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## THE ROLE OF ICT IN ADVANCING POLITICAL PARTICIPATION IN NIGERIA: A CASE STUDY OF THE 2011 AND 2015 GENERAL ELECTIONS

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### **Abstract**

*The paper examined the impact of ICT on the 2011 and 2015 general elections in Nigeria. The integration of ICT into the country's electoral process demonstrated the strong resolve of the government to address a wide range of problems and irregularities associated with Nigerian elections. Utilising descriptive qualitative methodology and relevant secondary data, the paper discovered that, although ICT sector and e-governance are nascent in Nigeria, the deployment of ICT by all relevant stakeholders during the 2011 and 2015 general elections produced remarkable successes, which revealed that the integration of the technology in governance could significantly stimulate enhanced citizen participation in Nigeria's political process. The technology served as a resource for advanced election management by INEC, and provided the platforms for campaign and contact, political information and communication, enlightenment and mobilisation; interest articulation and aggregation; opinion polling and election monitoring by other stakeholders like politicians, political parties, civil society organisations and the electorate. Nevertheless, the initiative witnessed a number of problems, caused by mechanical and human imperfections, which hampered the full realisation of the envisaged goals it was intended to achieve. The high hopes of ICT-based political activity in Nigeria, however, can be realised if relevant stakeholders, including government, work in concert. Besides, procurement of high quality and genuine ICTs for elections, availability of adequate and properly trained personnel with expertise in ICTs operation, availability and accessibility of basic ICT infrastructure, significant inclusion of rural residents in ICT-based political participation, among others, are recommendations believed to foster ICT-based electoral process and political participation in Nigeria.*

**Key Words:** 2011 and 2015 general elections, electoral process, ICT, INEC, political participation.



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## **Introduction**

The government of Nigeria has responded to the global imperative for the integration of Information and Communication Technology (ICT) into critical public sector management and the political process. The 2011 and 2015 general elections represented major and remarkable occasions in which ICTs were considerably utilised in the history of elections in Nigeria. Accordingly, all relevant election stakeholders such as the Independent National Electoral Commission (INEC), politicians and political parties, civil society organisations and the electorate participated in the electoral processes by means of ICTs. Hence, "the 2011 [and 2015] Nigerian general elections is definitely a landmark election in a country whose previous elections had been marred by fraudulent and corrupt practices" (Nwokeafor, 2013, p. 1). In as much as immense successes were achieved from the utilisation of ICTs during the general elections, and gave credence to the mobilisation theory, a number of problems that emanated from the deployment of the technologies adduced some credibility for the normalisation/reinforcement theory. Consequently, the situation became characterised by mixed reactions. Hence, it is the purpose of this paper to analyse the role ICT of in the 2011 and 2015 general elections, particularly in enhancing election management, political campaigns, contacting and voting. To this, the question of interest is; in what ways have ICTs been used to further democratic participation in Nigeria during the 2011 and 2015 general elections? The paper will also highlight areas of successes, constraints and challenges, and explain the prospects of ICT deployment in political activities in Nigeria.

## **The Concept of Information and Communication Technology (ICT)**

ICT is the acronym of Information and Communication Technology. The term can be used in at least two senses. In the first sense, which takes a singular form, ICT refers to the study and application of (the knowledge of) applied sciences in innovating or engineering new and practical ways of handling information and communications. This is because information and communications are vitally important to human beings, especially in the contemporary knowledge-driven and significantly globalised world order. In the second sense, which can take a plural form, ICT refers to any electronic technologies – scientific equipment with built-in artificial intelligence – used for the purposes of information and communication. ICT is a composite of information technology and communication technology. Earlier, science had developed information technology (IT) for handling information. The need to communicate information among people or from one electronic device to the other necessitated the creation of communication technology (CT). Hence, ICT is a two-way technology with bearing on information and communication (of information).

Parliamentary Office of Science and Technology (as cited in Hafiz, Shaari, & Saleh, 2013) defines ICT as any technology that facilitates communication and assists in capturing, processing and transmitting information electronically. Akunyili (2010) links ICT to the convergence of Information Technology (IT) and telecommunication technology, and asserts that ICT is thus an umbrella term that covers all technical means for processing and communicating information. Practically, ICT finds expression in digital technology and all its variants including computer, the Internet, mobile phone, different electronic applications (e.g. e-banking, e-commerce, e-clinic etc.), digital media and broadband technology. It refers

to the range of technologies that can be applied in the process of collecting, storing, editing, retrieving and transfer of information in various forms (Hafiz, et al., 2013, p. 18).

There are both generalised and specialised ICTs. Generalised ICTs refer to ICTs that are not specific in function or limited to one aspect of use or activity; they are versatile and can be applied to a wide range of activities. Examples of generalised ICTs include computer, the Internet, mobile phones, World Wide Web, etc. On the other hand, specialised ICTs refer to ICTs specially designed for specific area of use or activity to which they are limited. Examples of specialised ICTs include the following:

- *Traditional electronic media* such as radio and television
- *Electronic voting technologies* such as direct recording electronic voting machines (DREVM), optical mark recognition machines (OMRM), electronic ballot printers (EBP), automated fingerprint identification system (AFIS), card-reading machines, direct data capture machines (DDCMs), etc.
- *Social networking technologies* such as (the websites) "Facebook", "Twitter", "Myspace", etc.
- *E-mailing technologies* such as "Google mail," "Yahoo", "Hotmail", etc.
- *E-commerce/e-business technologies* such as "LinkedIn".
- audio-visual systems
- *Online multimedia technologies* such as "YouTube" and "Flickr".
- Satellite systems

ICTs also include traditional technologies such as radio, television and the print media, as well as modern technologies such as software, mobile phones, fax etc, which are used for exchange of information among people for different purposes. Some of the benefits of using ICTs include speed and accuracy, efficiency and effectiveness, ease and transparency in managing information and communications. A range of functions that ICTs perform include the following: recording, capturing, computing, storing, encoding, decoding, analysing, verifying, processing, retrieving, transmitting, disseminating and communicating of information/data.

### **Conceptualisation of Political Participation**

The fact that the people of a state possess the citizenship of the state ordinarily entitles them to partake in the political life of the state. This will require them to engage in any lawful political activities in the state whether such activities demonstrate support for the government, its operative principles and policy (domestic or foreign) direction; or portray criticism, opposition, resistance, protestation or demonstration against the government, its programmes, operative principles and policy (domestic or foreign) direction. This involvement in the political life or process of one's country is simply referred to as political participation. Political participation can be active, passive or subject depending on the degree to which a citizen chooses to participate, on the behaviour of the political class, or depending on the nature and framework of the political system. Alapiki (2010, p. 159) defines political participation as "those voluntary activities by which members of a society share in the selection of rulers directly or indirectly,

[and] in the formulation of public policy ... these activities typically include voting, seeking information, discussing and proselytizing, attending meetings, contributing financially, and communication with representatives.” McClosky (1972) notes the active form of political participation to include “formal enrolment in a party, canvassing [for votes] and registering voters, speech writing and speech making, working for campaigns, and competing for public and party offices.” Igwe (2007, p. 335) defines political participation as “the degree and forms of involvement of the people in governance and related institutions of society, such as the economy and culture, this being an essential index of the extent of maturity of political culture, as well as the society’s level of political development.” He further adds that:

There are many interconnected forms of political participation, with different degrees of influence and power as well as significance to the citizenry. They also differ in their legal and constitutional permissibility as well as ethical worthiness. Hence, political participation may include on the open side, the actual holding of government and party post, political debates and campaigns, voting and contesting in elections and, on the more subtle, sometimes hidden side, lobbying or persuading power-wielders, bridge-building, cliquism or narrow group-mindedness, etc, embodying a whole lot of power brokers, king-makers, button pressers and facilitators, revolutionaries, the hidden persuaders and influence peddlers. On the outrightly illegal and negative side of political participation are the party and political thugs and factotums, vote riggers, political name-droppers, and so on. The degree to which constructive and constitutional political participation dominate over the revolutionary, illegal and negative tendencies, is a reflection of the quality of the political system, and the preponderance of democratic over other values (p. 335).

Eminue (1983, p. 166) argues that, “democratic citizens must participate actively in the governance of their communities by voting for leaders or policies of their choice in local or national elections, referenda and plebiscites, since the ballot box, despite its obvious limitations, is the single most important mechanism through which most citizens signalize their feelings and preferences.” This is because “participation helps citizens to discover and develop their capacities and gives them a sense of being in control of their destinies, thus leading to the promotion of self-realisation and self-fulfilment.” As such, citizens can “participate by presenting themselves to be voted for in an election, by canvassing or campaigning before election, by taking out active membership of political party or pressure group ... and by constantly submitting memoranda containing suggestions and proposals of how things should be done to their elected representatives.”

Lichbach & Zuckerman (2009) define political participation as activities aimed at influencing the selection of office holders and the policies they adopt. Political participation is “taking part in the processes of formulation, passage and implementation of public policies” (Parry, Moyser, & Day, 1992, p. 16). For Verba, Nie & Kim (1978, p. 1), it refers to “those legal acts by private citizens that are more or less directly aimed at influencing the selection of governmental personnel and/or the actions that they take.” Moreover, participation in politics can be viewed as being involved in any activity that aims at or is

capable of directly or indirectly shaping the things governments do. It can be by way of modifying the action of government from its original direction.

In the light of this, Verba, Scholzman, & Brady (1995) state that political participation is an activity that has the intent or effect of influencing government action either directly by affecting the making or implementation of public policy, or indirectly by influencing the selection of people who make the policy. Riley, Griffin, & Morey (2010) perceive political participation as encompassing a set of rights and duties that involve formally organized civic and political activities. Accordingly, it is the political right of a citizen to participate in their country's political process by performing their civic and political responsibilities formally. Electoral activities such as voting, attending campaign rallies, demonstrating support for (party) candidates and persuading other voters to do the same constitute a set of formal and informal political activities in which a vast majority of the voting population can easily partake. This indicates that voting is an indispensable aspect of political participation in a democracy.

Flaigan & Zingale (1998, p. 6) argue that, "the most common form of political participation is exercising the right to vote." Hence, election is the singular activity that provides the greatest opportunity for massive political participation as it enables ordinary citizens to exercise their basic political right of choosing their leaders. Accordingly, Slann (as cited in Olabamiji, 2014, p. 46) notes that "election in democracies provides the most important and widespread manifestation of political participation." The most obvious form of political participation in democracy is voting. Other forms include such behaviours as reading, listening or watching political events or development on the mass media, taking part in political discussions, attending party meetings, giving financial and material contributions to political parties, writing petitions or letters with bearing on political issues to public officials or newspaper editors, trying to influence voters, contesting election for public office, etc.

Political participation is a necessary ingredient of every political system. All democratic political systems encourage political participation but in diverse ways and to varying degrees. Democracies and non-democracies have their unique kinds of political participation. While a democracy may uphold the idea of popular or liberal political participation, non-democracies are known to uphold and enforce limited or closed political participation. Some of the reasons include to maintain conservative traditional status-quo and to forestall any possible sweeping revolution.

### **Political Participation in Nigeria**

Since independence on October 1<sup>st</sup> 1960, political participation in Nigeria has been characterised by so much democratic aberrations. They include violence; crisis; corruption; defiance to due process; mutual mischief and malevolence; pursuit of sectional or ethnic interests; and accentuation of primordial identities and values. The long period of authoritarian military rule has virtually wrecked democratic institutions in Nigeria and consigned democratic culture to oblivion. Moreover, the lacklustre attitude of majority of Nigerians towards politics has entrenched docile, passive and subject participation in the

political process. In extreme cases, the result is complete apathy to politics and cynicism about government. This poor cognitive orientation and attitudinal inclination toward politics on the part of the ordinary Nigerian is, perhaps, inadvertently strengthened by Nigeria's pro-elitist and bourgeoisie political system, the undemocratic culture of the generality of Nigeria's political leaders across the three tiers of government, economic hardship and disillusionment with government, and the weak condition of democratic institutions in Nigeria. This poignant legacy has been carried on from the past to the present fourth republic. The frustrating situation lures so many gullible Nigerians into the hands of vile politicians who maximise their gullibility to perpetuate electoral vices. Hence, electoral politics is fraught with thuggery, horror and irregularities all of which further discourage upright Nigerians from participating in politics.

Besides electoral politics, the participation of the civil society in governance or in policy making and implementation processes in Nigeria is very limited. The dismal background of political participation in Nigeria impedes every effort toward free, fair, transparent and satisfactory election, and democratic development in the country. Over the years, government has been working in concert with relevant stakeholders to ponder and determine the problems of elections in Nigeria, and to establish pragmatic measures to resolve them. Irregularities and the culture of lawlessness and malpractices promoted by all stakeholders in elections are among the major problems of elections in Nigeria. In the light of this, government and other election stakeholders have turned to ICT with raised hopes that the technology can help address many of the problems of election in the country. This is actually a demonstration of Nigeria's response to the global necessity to incorporate information and communication technologies (ICTs) in administrative and political processes. It also reflects a global movement towards "Internet elections" or "e-electioneering" (Macnamara, 2008). One of the practical steps taken in this direction was the drafting of National ICT Policy of 2012, released in January 2012 by the Ministry of Communication Technology (MCT), which specified Nigeria's ICT objective as a "knowledge-based globally competitive society by 2020" (Ministerial Committee on ICT Policy Harmonization, 2012, p. 12). Essentially, the draft National ICT Policy of 2012 proposed ambitious changes designed to centralise ICT policymaking and regulation.

Interestingly, e-governance is spreading in Nigeria, though it is still in its infancy. In implementing public sector reforms in conjunction with the World Bank in order to increase accountability and transparency, the government of Nigeria, in 2008, automated some of its administrative activities such as record-keeping, budgeting, procurements, approvals, and awarding of contracts. The reforms also introduced e-payments for all civil service transactions, e-tertiary entrance examination organised by JAMB, e-verification of vehicle and drivers' licences by traffic police in the Federal Capital Territory, e-enrolment and deployment of young Nigerian graduates to the NYSC programme, GIS mapping of land allocations, automated system for Customs service, and electronic payments of salary. The use of ICT in this respect has created efficiency and yielded huge successes despite some problems associated with it (Odufuwa, 2012).



The 2007 voter registration exercise marked the earliest attempt by the government of Nigeria to integrate ICT into the electoral process. The dismal result of the exercise notwithstanding, the 2011 general elections witnessed a considerable improvement in ICT utilisation. The utility of ICT in electoral process become more apparent because of the deployment of the technology in the 2015 general elections. Particularly, the presidential and gubernatorial elections in the 2015 general elections were remarkable for the utilisation of ICTs such as electronic permanent voter's card (PVC) and card reading machines. As such, it can be argued that these technologies played some significant roles in the outcomes of the election. For example, for the first time in the history of Nigeria, presidential election result was not contested in court. For the first time also, an incumbent president easily congratulated his opponent to whom he has lost election even before the election result was officially announced. This rare occurrence may as well be attributed to the placid and pacific personality of Goodluck Jonathan who lost in the presidential election. However, it may not be an informed conclusion, as there could be the possibility that the utilisation of ICT in the elections left him with no reason to seek redress in court.

The question, as stated above, which the paper intends to address, is oriented toward the mobilisation theory, which offers strong advocacy to ICT utilisation for political activities because it has a significant mobilisation effect. However, another theory – the normalisation/reinforcement theory – strongly objects to the idea of utilising ICT for political activities because it has a considerable reinforcement effect. Hence, it is important to examine the theoretical foundations upon which ICT utilisation in political activities is advocated on the one hand and opposed on the other hand.

### **Utilisation of ICT in Political Participation: A Brief Analysis of Theoretical Perspectives**

The concept of ICT deployment in political activities is controversial. At the centre of the intellectual controversy are the mobilisation and normalisation/reinforcement theorists. Hence, Norris (1999) states that the debate over the effects of the Internet and other ICTs on political participation has been broadly cast as a competition between reinforcement and mobilization hypotheses. Whereas the mobilisation thesis/theory strongly supports ICT/Internet-based political participation on the grounds of its potential strengths and advantages, the normalisation/reinforcement thesis/theory strongly opposes and doubts the capacity of ICT/the Internet to improve political participation.

In support of the mobilisation theory, Norris (2001) argues that the Internet could create a virtual direct democracy and encourage new forms of civic engagement. This is because people, especially under-represented citizens, can use it to enhance communication with their representatives, provide direct links to policy makers, broaden opportunities for political debate and deliberation, and to reduce barriers to political participation. Scheufele & Nisbet (2002) argue that political information derived from the Internet could engender enhanced political learning and motivation, which is capable of increasing participatory level of Internet users. The theory further argues that ICTs can provide extensive mobilisation and contacting effects on people and that this can apply to political mobilisation and participation, especially for people who were under-represented in traditional forms of participation.

Scholars and politicians are inspired by the capabilities and resourcefulness of modern information and communication technologies to believe that the technologies can serve as a new tool for political socialisation and as a way of making citizens to be active in the political process.

However, the normalisation/reinforcement theory strongly objects to the mobilisation ideas. It argues that the Internet cannot create new forms of civic engagement and a virtual direct democracy because it lacks the capacity to make those aspirations possible. Rather, the theory posits that instead of effecting any major changes in the rate or quality of democratic participation, the Internet and other ICTs are only reproducing and reinforcing already existing social biases of participation between the resource-rich and the resource-poor. Internet-based politics will end up strengthening the political stock of people who are already politically involved, and reducing the chances of uninterested and apathetic people (Gibson, Lusoli, & Ward, 2005, p. 567). Streck (1999) and Sunstein (2001) believe that the artificiality and individuality of the Internet thwart effective civic debate and discourse, thus making it a barrier to democratic development. It discourages the possibility and practicality of collective action (Street, 1992; Lipow & Seyd, 1996), reduces social capital and community ties (Etzioni & Etzioni, 1999; Galston, 2003), and reduces checks on government (Wilhelm, 2000; Lessig, 1999; Adkeniz, 2000; Liberty, 1999; Elmer, 1997).

By examining the role of ICT in the 2011 and 2015 general elections, it will be easier to appreciate the theory that is more practical.

### **Survey of ICT Sector Condition in Nigeria**

Nigeria has a fully liberalised and very competitive information and telecommunications market. Internet World Stats (2012) observes that in mid-2012, Nigeria had the highest total number of Internet users of any country in Africa, with 48.4 million users, leading Egypt (29.8 million), Morocco (16.5 million), Kenya (12 million) and South Africa (8.5 million).

The development of broadband Internet in Nigeria is nascent. Hence, broadband Internet network penetration and coverage in Nigeria are low and very limited partly due to the decrepit situation of fixed telephone lines in the country. Consequently, the country now relies heavily on wireless technologies of mobile phones – which have become the dominant means of Internet access in Nigeria – for Internet delivery (Research ICT Africa, 2012). Due to the growth of mobile Internet usage, mobile phones have become the primary medium of accessing the Internet in Nigeria, with 58.1% of web traffic originating from handsets and other mobile devices (StatCounter Global Stats, 2012). Although there is strong Internet uptake in Nigeria, at the same time personal computer penetration is low and fixed household Internet is virtually non-existent (Odufuwa, 2012).

, The general paradox in Nigeria's telecommunications sector is that while mobile telephony sub-sector has high performance and huge growth, the fixed telephony sub-sector is experiencing deficiency and downward slide. This leads to overloading of the mobile networks with voice and Internet traffic, and

further leads to poor network service or total network failure. Consequently, consumer pressure on mobile networks create significant quality of service (QoS) problems, as the vacuum in fixed services puts a tremendous burden on mobile operators to deliver good quality voice, data and Internet services (Odufuwa, 2012, pp. 4–5). Many Nigerians, especially the majority of the economically disadvantaged, are discouraged from using their mobile phones for calling and for online (political) activities due to high calling and browsing tariffs.

National agencies responsible for ICT policy formulation, implementation and regulation in Nigeria include the following: National Communications Commission (NCC), Nigeria Broadcasting Commission (NBC), National Information Technology Development Agency (NITDA), National Frequency Management Council (NFMC), the Universal Service Provision Fund (USPF), Nigerian Internet Registration Association (NiRA), and Nigerian Communication Satellite (NIGCOMSAT) (Odufuwa, 2012). Since the integration of ICT in governance started gaining global attention, these agencies have made efforts to ensure that ICT is adopted and satisfactorily utilised in governance across all sectors. The draft National ICT Policy of 2012, released in January 2012 by the Ministry of Communication Technology (MCT) is one of the steps toward automation of the administrative processes of government. They also regulate the activities of private GSM companies like MTN, Globacom, Visafone, Etisalat, Starcom, and Mtel to ensure that the quality and cost of services they provide are good and fair.

It is important to restate that the contradictory theoretical positions of the mobilisation and the normalisation/reinforcement theories make the appreciation of the relationship of ICT to political participation more ambiguous. The confusion is that both theoretical arguments seem plausible and it is difficult to accept either of them for their own sake without examining their claims against concrete situations. Against this backdrop, it is imperative to examine the role ICT played in enhancing political participation during the 2011 and 2015 general elections.

### **The Role of ICT in Enhancing Political Participation during the 2011 and 2015 General Elections in Nigeria**

Since ICT was integrated into the Nigerian electoral process during the 2007 general elections, it has become a practice to utilise ICT in subsequent elections. The use of ICTs during the 2011 and 2015 general elections indicated a furtherance of technology-based electoral process. INEC, political parties, politicians, civil society organisations and the electorate were the major stakeholders in the electoral process that used ICT during the 2011 and 2015 general elections.

“The preceding elections of 2003 and 2007 were criticized for not meeting the minimum standards of organizing national elections. Predictably, this negative perception of Nigerian elections placed a burden on the present commission when it was inaugurated in June, 2010” (Nigeria Civil Society Situation Room, 2015). The poor handling of the elections reflected in some ways, such as INEC's inability to show adequate responsiveness and sensitivity to the apprehension of other election stakeholders, its poor

partnership with the stakeholders, and a myriad of other irregularities during the electoral process. These shortcomings were blamed for the poor conduct of the 2007 general elections and other elections before it. On assumption of duty in 2010 and in fulfilment of his promise to conduct better elections in 2011, INEC chairperson, Attahiru Jega, made sufficient use of ICTs and engaged in partnership with civil society organisations necessary for co-operation and information sharing. One of such partnership was with the civil society organization “Enough is Enough Nigeria” (EiE). A social media framework that included Facebook, Twitter and Youtube platforms were created for interaction between INEC and other election stakeholders.

Another step taken to enhance communication with other election stakeholders during the 2011 and 2015 general elections was the setting up of an ICT-fitted Situation Room. The room served as a nerve centre that co-ordinated all e-communications and e-contacting between INEC and its field officials, political parties, civil society organisations and the electorate during voting and collation of votes. “Equally in the room was the Amplified Radio, a terrestrial Radio Station, which carried live broadcasts, reporting and interviewing Situation Room members” (Nigeria Civil Society Situation Room, 2015, p. 9). “INEC established a consistent communication portal by using the voters’ telephone numbers collected as part of the registration exercise to communicate with Nigerians in a timely and effective manner. They also established a direct communication by SMS with polling unit officials across the country to increase efficiency. These areas were adequately strengthened to avoid any form of opportunity to blame the commission or the system for any fraudulent intention” (Enough is Enough Nigeria as cited in Nwokefor, 2013:6).

The social media was instrumental in the improved communication and contact between INEC and the public. It enabled INEC officials to receive information or situation report easily from polling stations and to respond easily to such information or report within a small space of time (Fadoju, 2015). It also accounted for the reason INEC was able to receive over 4,000 Tweets on its website in three days during the presidential election alone, as well as why it was quite easy for more than 70,000 people to be able to contact INEC directly to report incidents and have their questions answered (Asuni & Farris, 2011, p. 10–18). Moreover, INEC’s use of social media during the 2011 elections significantly strengthened the commission’s capacity to receive and respond to the concerns of election stakeholders during the general elections. Hence, the 2011 general elections witnessed a significant deployment of a variety of ICTs.

INEC also utilised ICTs during the 2011 and 2015 general elections to embark on a comprehensive electronic voter registration by which biometric data of all eligible voters were collected, processed and stored electronically. ICTs deployed for the voter registration exercise in 2011 comprised of “132,000 Direct Data Capture Machines (DDCMs), laptop computers, finger print scanners, high-resolution cameras, back-up power packs and integrated [digital] printers, configured into the DDCM-packages. These enabled the compilation of a credible register of voters and the production of good quality temporary voters’ cards that were used for voting in the April, 2011 general elections as well as



subsequent elections” (INEC, 2015, p. 4). They helped prevent many of the problems associated with the exercises in past elections. Working in concert with an ICT Consultant and a team of software developers, INEC achieved the development of software for electronic voter registration exercise. One of such software is the Automated Fingerprint Identification System (AFIS) and through this, the commission was able to identify about 870,000 duplications (INEC, 2011, p. 16). The Direct Data Capture Machines (DDCM) and Automated Fingerprint Identification System (AFIS) helped in taking biometric data, facial images, and (10) fingerprints of registered voters. AFIS is a standardized biometric solution developed by National Institute of Standards and Technology (NIST). The initiative helped considerably in checking multiple registration and impersonation. Electronic voter register was created, and helped in facilitating verification and accreditation of voters before voting.

Biometric electronic permanent voter's cards were issued to voters particularly for the 2015 general elections. This marked an improvement on the 2011 ICT-based elections in which temporary voters' cards were used. In an unprecedented way, electronic card-reading machines were deployed by INEC to several polling stations across Nigeria to verify the validity and authenticity of PVCs brought to the polling stations for voting by the electorate. More so, the card readers were used during voter verification and accreditation exercise in culling biometric data about PVC holders to determine the biometric authenticity and legitimacy of such holders. The use of PVCs and card-reading machines made verification and accreditation to be trusted. Many Nigerians had confidence in the integrity, relevance and capacity of the ICTs to provide fair, transparent and credible accreditation and voting exercises. Indeed, the ICTs prevented the repetition of many of the usual irregularities associated with Nigerian elections such as impersonation and multiple voting. The verification exercise also curbed the possibility of voting with forged PVCs. Below are pictures of a PVC and a permanent voter card.



During the 2011 and 2015 general elections, political parties and their candidates also used social media ICTs for campaigning for votes and engaging with voters and constituents. Regular online contact and communication was maintained mainly via Facebook, Twitter, special applications and party websites. The social media and Internet applications were mainly maximised by the two major political parties – People's Democratic Party (PDP) and All Progressive Grand Alliance (APC) – during the 2015 general elections. Specifically, the PDP developed the website “Forwardnigeria.ng” to enable Internet users to



access “Forward Nigeria” which was a special application designed to promote its presidential candidate, President Goodluck Jonathan. On its part, the APC developed the website “Apcgmbpyo.org” which enabled Internet users to access “General Buhari” which also was a special application designed to promote its presidential candidate retired General Muhammadu Buhari.



As a way of promoting their candidates, supporters of the PDP and APC used Twitter to disseminate political messages with the hash tags #GEJ\_WINS, and #CHANGE respectively. The APC received and answered questions from the public through its Google+ hangout, “Nigerian youth.” The question and answer session was anchored by the party's vice presidential candidate, Yemi Osinbajo, and Lagos State Governor Babatunde Fashola. The PDP also used its Google+ hangout “Jimi Agbaje 2015” in Lagos for the party's gubernatorial candidate for Lagos state, Jimi Agbaje to enlighten the masses, campaign for votes and mobilise supporters. Social media helped the parties in achieving greater and more efficient political communication with voters and constituents.

“FactChecki.ng,” an information-sensor website was integrated into the electoral process by the APC. Questions were raised on the platform and answers were sent in. The website received and aggregated submissions from interested members of the public across Nigeria and vetted them. It played a gate-keeping role for the APC; it scrutinised information, submissions and public comments sent into the website concerning its presidential candidate retired General Muhammadu Buhari, expunged fallacies and malicious contents intended to harm him and/or the party and retained supportive and approving ones. This helped in raising the personality and character judgment of Muhammadu Buhari who eventually won the presidential election.



A number of interest groups and civil society organisations (CSOs) played significant roles with ICTs during the 2011 and 2015 general elections. They include the following: a coalition of four CSOs: Federation of Muslim Women’s Associations in Nigeria (FOMWAN), Justice, Development and Peace/Caritas Nigeria (JDPC), Nigeria Bar Association (NBA), and Transition Monitoring Group (TMG); Enough is Enough Nigeria (EiE) – a coalition of Internet-savvy Nigerians –; Community Life Project in Lagos; Pirates of Nigerian Twitter – a group of social media brand promoters –; Sterling and Greenback; Gbosa Gbosa Technology Ltd (Fadoju, 2015). They created social media platforms through which they engaged with the electorates and disseminated political information to them. They had mobile applications and websites that helped them to organise opinion polls about candidates, conduct virtual online voting, articulate preference tweets, facilitate political donations, monitor the elections, etc.

“Project 2011 Swift Count” was a cross-national project implemented by a coalition of FOMWA, NJDPC, NBA, and TMG. With technical assistance from the National Democratic Institute (NDI), the coalition used the initiative to monitor and report election situations from across Nigeria. This was in keeping with its objective of providing Nigerians with both quantitative and qualitative data regarding the 2011 elections by using mobile phone messaging system. The essence was, in part, to create a reliable database that could be used to verify election results that INEC would announce in the end of all elections across Nigeria (Odufuwa, 2012).

“Revoda,” a mobile phone application for election monitoring, created by “Enough is Enough Nigeria” coalition played a significant role in both the 2011 and 2015 general elections. The platform connected all subscribers so that they could send in election incident reports from wherever they were observing the elections. Odufuwa (2012) states that the application helped in documenting logistical deficiencies and fraudulent behaviour during the 2011 elections. Also, the application enabled “users to register their phone numbers with a particular polling unit, so that reports made about the polling unit could easily be authenticated and followed up by INEC” (Asuni & Farris 2011, p. 2). The coalition also established a Youtube platform, which it used to upload a stream of recorded and live videos of election events as they occurred. The goal was to raise the transparency level of the electoral process. Harwood (2010, p. 14) remarked that, “Enough is Enough Nigeria” used “Tweets and Facebook messages to whip up interest and then have people go out to register and vote, and they will then use the same tools to report on their activities so we can create an online buzz that inspires more offline action.” During the 2015 general elections, “Enough is Enough Nigeria” website *eie.ng* was used to provide personal information on party

candidates running for political offices to enable voters make rational voting decisions based on such information. It also to beamed INEC’s press releases to users in order to make them get regular and current updates about the elections. It aided users in getting information on polling units, the election process and their PVCs (Fadoju, 2015).

The online platform, “Reclaim Naija,” created by “Community Life Project in Lagos,” was an election incident reporting system. During the 2011 general elections, the platform played the following roles: it served as a medium through which Nigerians reported cases of electoral irregularities via SMS. It provided a comprehensive online information concerning the 2011 general elections, including information on certain issues such as all the polling units; electoral wards; constituencies and districts; the Nigerian Constitution; backgrounds of candidates; the 2010 Electoral Act; the election timetable; electoral guidelines; certified voters’ registration figures; political parties as well as civic and voter education modules” (Odufuwa, 2012). It gathered reports on the event and experiences of the electronic voter registration (EVR) exercise of January 2011. The report immensely helped the media with information in publishing stories on the EVR exercise. It assisted INEC by feeding it with collected reports. This innovation facilitated information sharing during the 2011 general election. Hence, Harwood (2011) reports that citizen observers submitted 6,000 incident reports to the platform between the National Assembly elections of 9 April 2011 and the presidential election of 16 April 2011.

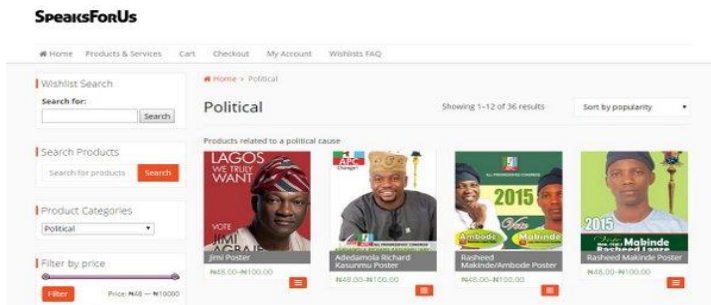
As a way of advertising party candidates online, the business-oriented social media brand promoters, – “Pirates of Nigerian Twitter” – articulated, aggregated and published scripted advocacy messages tweeted about party candidates. An example was the case of Goodluck Jonathan of the PDP.



The Lagos-based enterprise “Sterling and Greenback” established an online platform to assess perception judgment of Nigerians about candidates, especially the PDP and APC presidential candidates. It therefore helped to gauge the level of support Nigerians were giving to different parties and their candidates before the elections.



ICTs also helped in expanding the scope of political donations. “SpeakForUs,” a broad-based fund-raising website owned by “Gbosa Gbosa Technology Ltd” had a political donations category used by some political parties to crowd-source funds for the 2015 general elections. Some supporters donated to political parties of their choice via the online platform by purchasing party products such as caps, shirts, bags, posters and party branded products.



Other ways ICT was used to raise fund from party supporters include subscribing for certain mobile phone ringing tones, sending of premium SMS, doing some e-transaction, etc.

There were equally a number of websites and mobile applications used by civil society groups during the 2015 general elections. The desire to develop technology initiatives intended to make the electoral process better than it had been before led a number of Nigerian ICT developers to invent a variety of websites and Internet mobile applications. Some of these applications include “INEC” – named after the nation’s election management body –, “Naija Polls,” “Nigeria Decide 2015,” “Nigeria Elections,” while the websites include “Nigeriadecide.org,” “Pollwatchng.com,” etc.

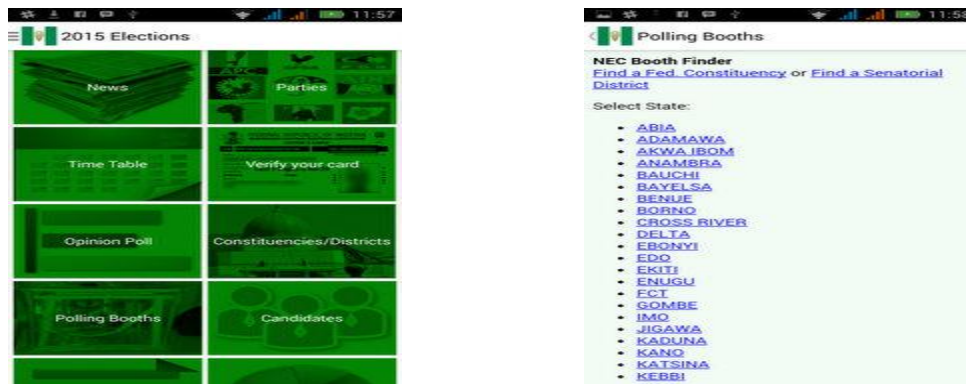
“INEC” provided online information for users with respect to polling units, the election process and the status of their PVCs. “Naija Polls” provided users with detailed biographies of party candidates. Such



information was intended to help voters, especially non-partisan voters, to vote objectively based on the credentials, records of accomplishment and qualifications of party candidates. It was also used for opinion polling about candidates who might win elections. “Nigeria Decide 2015” enabled Nigerians to participate in online virtual/mock voting for their preferred presidential and governorship candidates across Nigeria. *Nigeriadecide.org* was the website used voters and observers to assess “Nigeria Decide 2015” in order to submit election incident reports from their locations. It has a photography feature that enabled users to upload images with brief comments about the election situation being reported. Another website that performed similar functions was *Pollwatchng.com*.



The election monitoring application “Nigeria Elections” was used to aggregate news about the 2015 general elections. It also provided lists of polling booths, electoral constituencies, presidential candidates and their running mates as well as gubernatorial candidates and their running mates. Officially announced election results were uploaded on the application for the information of Internet users who accessed the site.



Media houses like Sahara Reporters, Channel Television and African Independent Television (AIT) also utilised ICTs in the electoral processes of the 2011 and 2015 general elections. Like the civil society groups mentioned earlier, the media houses conducted online presidential election opinion polls to garner



information about how candidates were perceived and about which one of them may win the election. The opinion poll conducted by Sahara Reporters was one of the most popular polls of such kind.



Channels Television created an online application that could be downloaded from its website to smart mobile phones like Androids, IOS, Blackberries, iPads, and iPhones. It used the platform to engage in a direct communication with viewers during the 2011 and 2015 general elections. The online application served as *i-witness* platform through which individuals and members of civil society organisations communicated election incident reports to the media station. Similarly, African Independent Television (AIT) created an *i-reporter* platform for the same purpose. The Nigerian Television Authority (NTA), being a public television, was in the forefront of mediating political information, enlightenment, agenda setting, and real-time reporting of live election and voting events to Nigerians at home and in the Diaspora.

The immense use of ICTs by civil society organisations and private individuals during the 2011 and 2015 general elections demonstrated that “the expectations placed on information and communication technologies (ICTs) as a means to improve democracy have by no means been confined to governments. Instead, they reflect a general perception shared among significant parts of society” (Escher, 2012). Internet users think that the Internet can help them to wield more political power, better understand politics or make public officials care more about what they think (Cole, Suman, Schramm, Lunn, Zhou, Tang, & Ognyanova, 2012, p. 135). The utility of ICT to the 2011 electoral activity spurred virtually all election stakeholders to encourage the utilisation of ICT during the 2015 general elections. The 2015 general elections, therefore, marked a significant increase in the number of ICTs utilised for election purposes in Nigeria, both by the government, private entities and individuals.

In their various capacities, individual voters participated in the ICT-based 2011 and 2015 general elections. The electorate used the social media to get updates of election-related information, to contact

and communicate with their preferred candidates, express their opinions about candidates, exchange political information with online friends and to report their personal experiences during the elections. Many voters maximised opportunities inherent in the social media to report election incidents to INEC, security operatives, election monitoring groups from the civil society, and the traditional print and electronic media. They also made voice calls and sent SMS messages, tweets, videos and photographs of real life election events happening in the fields. They communicated with these bodies through hotlines and other communication channels provided by them. “Nigerians and various civil society organisations used ICTs to support INEC in diverse ways. They provided advice on contract awards, and furnished the commission with useful information concerning voter's register irregularities, inadequate supplies, errors in printed and distributed ballot papers such as omission of some parties, and omission or repetition of some parties' logos” (Enough is Enough Nigeria, as cited in Nwokeafor, 2013, p. 5). Hence, it was reported concerning the 2011 general elections that, “The general election days showed a generally peaceful and orderly process with enthusiastic voters committed to patiently attend accreditation and voting from the early hours to the end of each voting day. During the duration of the general election and voting process in Nigeria which started on April 9 after the postponement of the April 2, through the end of the election, violence was not as intense as during previous elections” (European Union Election Observation Mission Nigeria, 2011).

### **Problems of ICT Utilisation in Political Participation during the 2011 and 2015 General Elections in Nigeria**

It is evident that ICTs have been instrumental in the improved performances of all election stakeholders during the 2011 and 2015 general elections. However, there are problem areas that need to be identified and tackled otherwise their adverse effect will make the whole idea of ICT-based political participation unattractive.

First, ICTs can malfunction when they develop mechanical problems, especially if they are substandard, not maintained, have defective features, or if they are not properly used according to the manufacture's manual. There is also the human side of the problem. This occurs when ICTs are misused or mishandled deliberately, ignorantly or accidentally. Some ICTs are highly sensitive; when they are not properly used, they will not function. This can affect the electoral process, reduce the performance accuracy and effectiveness of the ICTs and make the new methodology absurd. In the 2015 general elections, many registered eligible voters were not accredited, and thus disenfranchised, because the card readers could not read their PVCs. This was because some card reader operates failed to peel off the protective nylon proof on the screens of the card readers while they tried unsuccessfully to verify the fingerprints of the voters. A remarkably absurd instance happened at a polling station in Otuoke, Bayelsa state when a card-reading machine failed to authenticate the validity of the PVC of former president Goodluck Jonathan when he wanted to cast his votes. It took a while before the problem was fixed. The situation reduced the

actual number of voters across the country as many voters who failed accreditation were eventually disenfranchised from voting in the elections.

Udendu's (2011) statement that, "in a world where everybody is connected, everybody is at risk" reflects the dangers of using ICTs in dysfunctional ways. The contagious nature of communications disseminated through social networking sites, being unregulated and amenable to abuse, can create a general atmosphere of apprehension and confusion when communications spread through the sites are malicious, mischievous, mendacious, and intended to deceive the public or to spread vicious calumnies against certain eminent public or political personalities, particularly during elections. Hence, Olabamiji (2014, p. 51) states that, "in Nigeria, nagging, venting of anger and expression of frustration are commonplace on the new media. This type of use repulses the citizens who are quickly turned off from the message. Where the new media audience helps in spreading such message the expected outcome is conflict which heats up the polity." Some political messages on the social media are capable of triggering, escalating and intensifying conflict, and unwittingly cause political violence (Koller as cited in Olabamiji, 2014). Dysfunctional political messages – such as spiteful graffiti posted on the social media – stereotype, demonise, brutalise political opponents, and demean their humanity. It is common to find lies and horrid pictorials on the Internet intended to defame and intimidate political opponents. This practice can create unpleasant outcomes such as triggering of conflicts during electioneering and election periods (Olabamiji, 2014, p. 51).

The cyber-world of the Internet is an apparent reality. Although ICTs have been useful in campaign and political mobilisation, they only create a virtual political world. By jumping on the bandwagon of ICT-based political participation, unscrupulous politicians may tend to reduce physical contacts with their constituents, and become elusive and unaccountable to them, especially after they have been voted into power. The atmosphere of hope, confidence and encouragement that face-to-face contact and communication create does not exist in the virtual world of ICT-based communication. Distant political communication, contacting and engagement are not appropriate for actual political development. There can be no satisfactory replacement for physical contact and face-to-face political communication. Online political activities create a virtual political participatory world, which is very abstracted from the real political world. This does not help in creating physical contact and co-operation that are vitally important for democratic development. As an online and distant contacting means, it cannot earnestly replace traditional forms of participation as the appropriate avenue for young citizens to learn the requisite socio-political skills for successful political participation. Such knowledge and skills are acquired usually through traditional forms of political engagement.

ICT-based electoral activity increases the opportunities of the literate and the resource-rich, and puts the illiterate and the resource-poor in a helpless situation. This is one of the emphases of the reinforcement theory. Despite the unprecedented deployment of ICTs during the 2011 and 2015 general elections in Nigeria, many Nigerians, especially rural residents, did not use ICTs like the social media to participate in

these elections. The disconnection of rural residents reflects absence of network coverage, or poor network services in rural areas. It also suggests a seeming disinterest in actively engaging rural dwellers in active political participation. Hence, of the 73,528,040 number of registered voters in Nigeria, only 39,469,484 turned out to vote. While of the 68,833,476 number registered voters in Nigeria for the 2015 general elections, only 31,711,128 (46.07%) were accredited for the presidential election of which 29,405,649 (42.72%) of votes was cast; leaving a differential of 37,122,348 unaccredited voters, and 2,305,479 voters who did not cast their votes respectively. Also, of the 68,833,476 registered voters in Nigeria only 56,460,968 collected their PVCs as at March 28, 2015 (Nigeria Civil Society Situation Room, 2015). Despite the massive deployment of ICTs during the 2015 general elections, the turnout for the 2015 presidential elections has been the lowest level of voter turnout since the return of democracy in Nigeria. Voter turnout figures for presidential elections indicate: 52% in 1999, 69% in 2003, 57% in 2007, 54% in 2011 and 46.07% in 2015 (Nigeria Civil Society Situation Room, 2015).

Moreover, high illiteracy rate, especially in rural areas, poor GSM network coverage across Nigeria, near-absence of fixed Internet penetration, low and limited broadband Internet penetration, poor mobile Internet network services as well as growing high voice call and browsing tariffs constituted hindrances to extensive utilisation of ICTs during the 2011 and 2015 general elections.

Another problem of using ICT during the 2015 general elections was pre-emptive announcements of election results. In several quarters, during the elections, many partisan party supporters uploaded unofficial election results on the Internet through social media sites, which eventually contradicted the official election results announced by collation officers and by INEC. In such cases, candidates, who believed they should have won an election, based on the results unofficially uploaded on the Internet, become disillusioned with the integrity and impartiality of INEC, suspicious of treachery and doubtful the electoral process. This careless practice can lead to chaos, conflict, tension and flared emotions. In serious cases, desperate politicians can resort to violence and social disruption. To this, Famutimi (2013, p. 13) states that, “through social media platforms, negative comments, speculation, misinformation, half-truths and rumours could spread like whirlwind with little or no chance to evaluate their veracity.”

How to handle issues of confidentiality, privacy and trust in online political engagement, how to provide identity management, information audit, data integrity and credibility, how to prevent identity theft and how to regulate social media communications constitute a serious problem to the utilisation of ICT in electoral process in Nigeria.

ICT-based electoral process faces the problem of inadequate funding. Adequate funding is required for procurement, haulage, installation, deployment, logistics, servicing, maintenance and storage of all ICTs required for elections. This can pose a serious economic challenge to a developing nation like Nigeria, especially when elections are to occur during a period of national economic decline. When economic problem leads to incomprehensive budget for elections, the consequence will be shortage of the required ICTs and unsatisfactory overall performance.

Another problem is inadequacy of manpower with sufficient and requisite expertise to effectively utilise ICTs in managing elections. The problem can constrain government to subcontract the supervision of ICT section of election management process to foreigners. Consequently, outsourcing will question the credibility of the electoral process and the integrity of INEC.

Considering the bad road network in Nigeria, especially in many rural areas, the fragility of many ICT kits creates a problem of transporting them from one place to another during elections. The impact of pressure or force on ICTs can damage or make them to malfunction. The problem of fragility and sensitivity also makes storage and maintenance of sophisticated ICTs challenging. ICTs like the Automated Fingerprint Identification System (AFIS) is sensitive and delicate and as such, handling them requires caution, favourable environment with uninterruptable power supply, high performance standby generating sets, air-conditioning and humidity control devices to function well (EC-UNDPJTFEA, 2012). Card reader is another fragile and sensitive ICT. Unfavourable environment with dampness from rain, moisture and liquid, with dust and dirt or with excessive cold or heat can corrode the electronic circuit boards, shorten the life, damage the battery, and distort or melt the plastic body of the device. Poor storage of the ICTs used during one election year can make them to function ineffectively in another election year. This might warrant the procurement of a new set of ICTs again, which will not be economically advantageous for Nigeria. Although the possibility of data loss can be prevented with the help of some back-up technology, such technology lacks absolute capacity to prevent data lost. Where data loss occurs, perhaps due to system failure, the goal of the whole process will be defeated.

There is also the problem of continuity, sustainability and maintenance. How to continue and sustain ICT-based political participation is not yet clear in Nigeria. Despite the mounting global support for ICT-based politics, the government of Nigeria has not made provisions for ICT-based electoral process in the country's constitution. Nigeria's Electoral Act has not recognised the utilisation of PVCs in Nigeria's voting process. There is therefore no wonder that the Supreme Court of Nigeria nullified the verdicts of the Appellate Court and election tribunals given in favour of the gubernatorial candidates of the APC in Rivers and Akwa Ibom States on the grounds that card readers are not recognised in Nigeria's constitution or Electoral Act as a medium for conducting elections.

### **Prospects for ICT-based Political Activity in Nigeria**

The deployment of ICTs in the 2011 and 2015 general elections in Nigeria significantly points to the optimism that, with concerted efforts, government and other relevant stakeholders can sustain ICT-based electoral process in Nigeria and make it extensive. A sustainable comprehensive policy is therefore needed to actualise this ambition. Public-sector reforms in 2008 instituted ICT as the basis of operation in public service delivery. The situation has influenced the introduction and utilisation of ICTs in the electoral/political process. The remarkable achievements of ICTs in the 2015 general elections, the hurdles and disappointments notwithstanding, offer some raised hopes that, in a matter of time, Nigeria will be able to properly institutionalise, and satisfactorily utilise ICTs not only for electoral activities, but also for several other political activities. The path to this lofty ambition has started crystallising. The growing ICT-consciousness among Nigerians, the increasing population of ICT users both privately and



at organisational level, the fully liberalised and highly competitive ICT market in Nigeria, the fact that the country has the highest number of Internet users across Africa and the gradual innovation of ICT software by Nigerians are historic developments. Altogether, they put ICT utilisation in Nigeria on the spotlight and strengthen the prospect for ICT-based political activity in the country.

### **Findings**

In the end of the study, the following findings were made. First, although Nigeria is a nascent democracy, the poor attitude of many Nigerians towards elections reflected in the poor voter turnout during the 2011 and 2015 general elections. During the 2011 general elections, of the 73,528,040 number of registered voters in Nigeria, only 39,469,484 turned out to vote in the presidential election. Of the 39,469,484 total vote cast, 1,259,506 votes were invalid and 38,209,978 votes were valid. While of the 68,833,476 number of registered voters in Nigeria for the 2015 general elections, only 31,711,128 (46.07%) were accredited for the presidential election of which 29,405,649 (42.72%) voted, leaving a differential of 2,305,479 voters who did not vote. In addition, of the 68,833,476 registered voters in Nigeria only 56,460,968 collected their PVCs as at March 28, 2015. Despite the massive deployment of ICTs during the 2015 general elections, the level of voter turnout for the presidential election – 46.07% – has been the lowest since the return of democracy in Nigeria.

Second, Nigeria has a nascent and fledging ICT sector, with rapid growth mainly in the General System of Mobile Communication sub-sector, and a moribund condition of fixed line communication system. Consequently, there has been an overwhelming mass shift to mobile communication (for voice call, messaging and the Internet) which has led to over-dependence and over-loading of the mobile networks with voice and Internet traffic. More so, despite the increasing penetration and individual usage of mobile telephony system, poor penetration of fixed household Internet and broadband Internet network and services, increasing mobile communication tariffs and inadequate power supply hindered the majority of economically disadvantaged Nigerians from maximising the utilisation of ICTs during the elections. Only resource-rich election stakeholders like INEC, political parties and their candidates, civil society organisations, and some rich private individuals mainly used ICTs to a considerable degree during the 2011 and 2015 general elections. The use of ICTs by these elections stakeholders happened mainly in towns and cities.

Third, a limited number of card-readers were deployed across Nigeria for the elections. Limited number of expert personnel and inadequate training of INEC field staff on how to operate ICTs, like card-readers, for the elections slowed down the success of the exercise.

Fourth, the successes achieved during the 2011 and 2015 general elections by using ICTs marked a significant departure from previous elections. However, there were problems caused by mechanical and human errors. Many eligible voters were disenfranchised and several others unduly delayed due to the defectiveness of some ICTs and limited expertise of some of the ICT operators, which caused misuse of

the technology. In some cases, ICTs were used carelessly or mischievously to propagate false information, misinform people, and to haul invectives at political opponents.

Fifth, ICTs like the social media and mobile telephony can only create a virtual political world that is indeed abstracted from the real political world, and as such cannot provide the requisite social skills for political life.

### **Summary and Conclusion**

Political participation involves a gamut of activities performed by citizens in their country's political process. Such activities include voting, attending party meetings and campaign rallies, political proselytising, reading, listening or watching political events or development on the mass media, and taking part in political discussions. Others include giving financial and material contributions to political parties, writing petitions or letters with bearing on political issues to public officials or newspaper editors, trying to influence voters, contesting election for public office, etc. Political participation among Nigerian citizens has been generally passive since independence. This orientation must have been developed against the backcloth of the appalling history of elections in Nigeria, which has been a history of electoral irregularities and absurdities. The mounting global currency of ICT utilisation in governance and the imperative to integrate the initiative in the management of electoral process in Nigeria have encouraged the Nigerian government to adopt ICT-based election management. Hence, ICTs were significantly used during the 2011 and 2015 general elections. However, the idea of e-political participation has generated two main contrasting theoretical perspectives, the mobilisation theory and the normalisation/reinforcement theory. While the former strongly advocates e-political participation because it enhances mobilisation, the latter strongly opposes e-political participation arguing that it reinforces the participatory inequality between the resource-rich and the resource-poor.

Although the generally poor condition of Nigeria's ICT sector hindered many Nigerians, especially rural dwellers and the resource-poor from participating maximally in the 2011 and 2015 general elections, some other stakeholders in the elections – like INEC, politicians, political parties, and civil society organisations – were able to utilise various ICTs for several purposes such as political communication, contacting, education, mobilisation, campaign, voter registration, verification/accreditation, voting, and election monitoring. The new electronic methodology threw up a number of problems amidst many successes. Hence, the experiences of the 2011 and 2015 general elections make it evident that the theoretical claims of the mobilisation and normalisation/reinforcement theories are not fallacies.

Generally, there are raised hopes that with concerted efforts, sound policy direction, determination of government and co-operation of all stakeholders in the electoral process, Nigeria will be able to fully institutionalise and effectively utilise ICTs for electoral activities. The successes recorded with using ICTs for the 2011 and 2015 general elections form the basis for such hopes.

## **Recommendations**

Following the analysis of the role of ICT on political participation during the 2011 and 2015 general elections, the benefits and dangers, capabilities and prospects of ICT have been identified. Based on the knowledge gleaned, the following recommendations are made.

Government should procure only high quality and genuine ICTs that meet international standard for use in electoral process and other political activities in Nigeria. This will help solve the problem of low performance, poor results and inefficiency of ICTs.

Government should provide adequate fund for ICTs to be used in electoral process. The fund should cater for procurement, hauling, installation, deployment, logistics, servicing, maintenance, storage and miscellaneous spending. This will ensure that adequate ICTs are available to go round the country during election periods.

Government and other stakeholders should guarantee the availability of adequate and properly trained personnel with the requisite ICT expertise to operate ICTs deployed for electoral purposes or for any other political activities. Such personnel should be trained and retrained in the use of ICTs from time to time. This will help obviate the problem of poor handling and misuse of ICTs.

There should be a moderate and comprehensive regulatory framework to guide social networking activities on the social media. This will oblige social media users to show maturity, responsibility and caution in the content and nature of the political information they propagate via social media platforms, as they will have to face responsibility for any mischief and impropriety in the information they disseminate. This will help ensure decency in social media communications, promote social stability and preserve public peace, order, and morality.

Government should encourage online participation as a complementary form of political participation. It should not be a new alternative to offline or traditional forms of participation. Because ICT-based political participation is a nascent development in Nigeria, it is expected that political participation will increasingly consist of both offline and online activities. Politics should be more of face-face contact to elicit understanding and co-operation. Hence, traditional forms of political participation should not decline.

The federal and state governments of Nigeria should work in concert with ICT developers as well as the federal government's ICT regulatory bodies to ensure that there is availability and accessibility of basic ICT infrastructure in Nigeria. This is because access to basic ICT infrastructure is vitally important to increasing the flow of information and improving communication and by extension, increasing possibilities and opportunities for the Nigerian people.

Government should take feasible measures to ensure that rural residents are fully integrated into ICT-based political participation. This will promote the democratic principles of political (participatory) equality, fairness and inclusion. This is so necessary because majority of Nigerians live in rural areas.

Nigerian government should work in concert with telecommunication companies to extend broadband Internet network across Nigeria so that citizens can easily participate in online political activity from anywhere in the country. Nigeria's telecommunication regulatory bodies should ensure that telecommunication companies provide sufficient telecommunication infrastructure and adequate voice call and Internet network services at reduced tariffs in order to stop the recurring problem of poor network services and to encourage more Nigerians to engage in online political participation with their mobile phones.

With high illiteracy rate in Nigeria, the majority of Nigerians to which the illiterate class belongs will not fancy ICT-based political participation. Hence, Nigerian government should provide good educational infrastructure and services to its citizens as so to motivate them to appreciate the importance of political participation, and then of ICT-based political participation.

Government should formulate a policy to ensure the continuity and sustainability ICT-based political participation in Nigeria as this will increase the overall ICT literacy and utility rates in the country

Government and other relevant stakeholders should, based on these recommendations, take relevant and comprehensive measures to ensure that ICTs failures and misuse are obviated in future elections. This will help avoid repetition of the problems created by ICTs like the card-readers in the 2015 general elections, which generated questions about the integrity and preparedness of INEC.

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## SUSTAINABLE DEVELOPMENT IN THE DIGITAL AGE: A RECIPE FOR NIGERIA

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### Abstract

*The study examined the expediencies of the digital age and Sustainable Development in National Development Plan by the Government of Nigeria. This is because doing so, would enhance continuing development over time given the digitalization of information required for sustainability in this age. The significance of this were that; Nigeria currently has 10.5 million out-of-school children, it expends #1.3 trillion on food importation annually, the population is on geometric rise without a correspondent output in food production and she has many other negative indicators of development, yet she has great potentials for sustaining development as social justice. In the digital age, information required for improved techniques for value-chain production of any type, Biotechnology to produce crop varieties with high yield is available. The combination of the advantages of digital age with Sustainable Development plan is indeed the chance to set Nigeria on the path of continuous growth. The study was conducted through the descriptive approach where Sustainable Development was described and the public policy steps required of Nigeria were defined based on the principles of sustainable development. The outcomes indicated that Sustainable Development options for Nigeria would require a benevolent dictator as a leader, the state directed investment, qualitative education of the citizenry, industrialization to unlock value-chain investment opportunities of the natural capital extracted from the earth and above all, environmental protection. This is because while science has many inventions to aid human existence, it has not invented technique to increase the land area for human cultivation. Investments should be in the mould of 'musa paradisica'. National Development planning base on Sustainable Development theory in digital age would generate development, which would nearly meet the need of the present generation without compromising the future of those yet unborn. This is the essence of pursuing Sustainable Development in the digital age.*

**Keywords:** Digital Age, Sustainable Development, Development Plan, Benevolent Dictator, Musa Paradisica'

### Introduction

Development or value addition to the scarce resources available to man for existence, is a desirable quest for all nation-state. It is far more desirable to Nigeria given the plethora of

potentialities which are yet to be transform into real development, that is, there have not been ‘value –additions’ (development) to all the natural resources available in Nigeria. Nigeria with a burgeoning population, consisting of mostly youthful population, is dire need of ‘value – addition’ or sustainable development’ of the natural resources available to it. The urgency of ‘sustainable development’ in Nigeria cannot be overemphasized, this is because, there are the crises of insurgencies (both in the Niger Delta, Northeast and the emerging ‘Fulani-Herdsmen terrorism) and many other fissures which are likely to come to the surface in due course.

Nigeria is an economy that is driven by the resources from crude oil sales. The 1973 ‘Arab-Israeli conflict’ and the resultant Arab oil embargo against the USA and many European countries opened the market for Nigeria crude oil sales. The utilization of the revenue realized from crude oil sales have not been on sustainable basis. Nigeria failed to develop Port complexes in natural deep water of Oron (Akwa Ibom State), Burutu, Forcado and Koko(Delta State), build Petrochemical Industries through Refining crude oil in the country and generate other industries that would have been created from the processes of crude oil refining to meet domestic consumption.

It is a truism that before World War II, prevailing economic ideology was known as ‘protectionism’. This development guideline led Sovereign states into establishing economic controls, including rationing consumer goods where possible. This same form of economic idea, led to the establishment of several State Owned Enterprises (SOEs) to drive development. This was further invigorated by the emergence of Keynesian economic principles, which enjoined states to have robust presence as the main driver of the economy in conjunction with the private sector. This led an increase in the cost of governance, which later dovetailed, into massive inefficiency and waste of resources in the third World and specifically in Nigeria.

The dawn of the ‘Digital Age’ otherwise known as the ‘Digital revolution’ or the ‘third Industrial revolution’ which drove the world from ‘mechanical and analogue electronic technology to digital electronic extensively marked by the proliferation and interconnectivity of digital computers, gave birth to a new world order, the concept and practices of ‘the global village’.

The digital age is termed the third Industrial age because it precede both Industrial and Agricultural revolutions before it. It is the information or data age. It is the age and time in which information is willingly exchanged and shared by placing it on the internet thereby making it available to all persons. The digital age or the age of information, communication and technology (ICT) created the following expediencies in the global village;

- (i) Increased efficiency (wide ranges of inefficient markets systems and behaviours have been changed by the applications of computers devices).
- (ii) More innovations, more opportunities (internet, advert, blogspot etc) have been created and ideas shared.

- (iii) Sharing development information in all spheres of human endeavours, so much that one could access all information required to start and conclude a phenomenon.

These expediencies are for individuals, groups and states to add value (development) to the society. Nigeria has not been able to take adequate opportunity of the digital age to ensure sustainable development in all spheres of its existence.

### **Statement of the Problem**

Given the expediencies offered by the digital age one of which is the availability of information, how can Nigeria take the opportunity to ensure that its development is sustainable? Put differently, Sustainable Development is a desirable option in the digital age; Nigeria ought to have taken advantage of it in order to save the rate at which the natural resources are being depleted because they are actually exhaustible. The imperative of Sustainable Development as a guide to public policy in Nigeria has become very glaring. In spite of the years of their exploitation and the huge resources that have accrued in the past, the human development indicators in Nigeria are quite discouraging. The current increase in the pump price of pms (petrol) this has further downgraded the well-being of majority of Nigerians by eating into their expendable, it is a pointer to the fact that Nigeria's development practices over the years have not been sustainable.

The issue constitute a serious problem of development, because almost all the data required ensuring sustainable management of the crude oil revenue are available on the internet, yet Nigeria, have not been able to take advantage of it to reduce the population of the citizens within the poverty social class, reduce unemployment, reduce inequality and increase self-reliance at the individual, groups and at the level of the nation-state.

The inability of Nigeria to ensure that her development programmes are sustainable has generated the following negative development indicators;

- i) Nigeria has about 10.5 million out-of-school children
- ii) In December 2015, it expended N1.3 trillion on food importation annually.
- iii) In the course of this study the pump price of pms was increased to N145.00 per litre (NTA News monitored in Uyo 11/05/16). In an economy which is petrol driven, it would worsen the inflationary rate and widen the poverty gaps and dislocate the economy when Nigeria Labour Congress embark on the threatened strike.
- iv) For the third consecutive month of 2016 (Q1), production level, employment data and general business activities recorded disappointing outcomes, with raw materials inventories facilitated with foreign exchange, falling at a faster rate. According to the Central Bank of



Nigeria (CBN) the Purchasing Manpower's index (PMI) for manufacturing showed that the segment remained in the negative line. The production level estimated 46.6 per cent, indicated a decline for the third consecutive month...12 of the 16 manufacturing sub-sectors reported decline in production. Employment level index in the month of March stood at 45.5 per cent, indicating another decline (Nelson, 2016 :1 ).

The principal issues constituting this problem include the fact that there are;

- i) The absence of patriotic and benevolent leadership and a ruling elite group that have development programmes with sustainable development bias.
- ii) A large chunk of the population which is largely untrained thereby keeping them out of the development processes.
- iii) Nigeria does not fund education adequately to ensure the accumulation of the critical mass of population required to drive the processes.
- iv) There is the dearth of the critical infrastructure required to take advantages of the digital age (electricity), computer, manufacturing and usage , the know-how etc. These are needed to provide the basic in order to take advantage of the digital age in pursuit of sustainable development.

It is important to know that sustainable development refers to economic progress using available resources by adding values without depleting the natural resources available. The Brundtland Report 'our common future' present the most quoted conception of the term, that is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

The conception include within it the concept of needs, in particular the essential needs of the Nigeria's poor, to which overriding priority should be given and the idea of limitations imposed by the state of technology and social organization on the environment ability to meet present and future needs (blogspot.iisd.org/t accessed 11/05/16). This very conception emphasised the desirability of sustainable development. It is imperative to note that to obtain development that meet the need of the present generation, the little extracted from the earth, must have value addition by way of processing and manufacturing, else so much quantity would be extracted which might not left much to meet the need of the future generation.

### **Issues in Sustainable Development**

It is instructive to note the following issues as Nigeria seeks sustain progress in economic production, distribution and consumption. These are;

- i) The food needs requirement of the lowest 60 per cent of the population, who live in the poverty bracket. This is because hunger, starvation and deprivation of the rung of the population –often constitute potent danger and social upheaval of unprecedented dimension. Sustainable

cultivation, production of processing and distribution of food requirements to this group in Nigeria is an urgent issue now and would remain so in the nearest future.

ii) Sustainable production of economic wealth in Nigeria is faced with the challenge of ‘technological know-how’ the very driver of sustainable development. Nigeria it would be recalled has about 10.5 million out-of-school- children worst than any nation just out from civil war. These children ought to be in school acquiring the technical skills required to drive sustainability of human development. The current minister of Agriculture averred that in December 2015, Nigeria food import bill stood at N1.5 trillion naira. This is because Nigeria is not self-sufficient in food production. This is a function of lack of technical skills required to add value to agricultural products required to add value to agricultural product.

iii) Nigeria has crude oil, hence its economy is oil driven economy, which is vulnerable to global conflicts and shocks so the price of oil rises and falls with the emergence or sub emergence of these conflicts. The use of Nigeria’s crude oil since independence has not been sustainable, thereby creating a situation in which Nigeria’s economic management fails sustainable development and test. The quest of ‘how’ drive Nigeria economy into the stage of sustainable development in the digital age, would be aided by the adopted theoretical framework of this study as espoused in the following section of the study.

### **Theoretical Framework of Analysis: The Plantain Theory of Sustainable Development**

Human Society is a continuous one, which expects everyone to live to his prime before exiting the earth gracefully for others to take over. Human society is individual writ-large, which constitutes the community and then the state in the quest for a better life in a continuous basis. Men then moved into a political community where they elect a few persons headed by one in form of a Government to provide services for the society, while they contribute by way of taxes. The services, which the Government provides on a continuing basis, contribute to Development. The men in society therefore expect the continuous provision of Development on a sustainable basis to the society in what the political philosophers had claimed was the divine and moral function of the State. It is instructive to note that the bulk of goods and services provided by the State are derived from the environment. Its care must therefore be factored into the development Processes in what is known as ‘Sustainable Development’ The urgency for a theory for Sustainable Development was made more urgent given the fact Africa is very wealthy yet so poor. According to the late Mazrui (1980) in terms of resources, Africa is one of the best-endowed regions of the world, but it is still the least developed of the inhabited continents. This is the pathology of technical backwardness. Africans have the poorest per capita incomes. This is the pathology of maldistribution. While the continent is rich in resources, it so fragmented that it includes the majority of the poorest nations of the world. The paradox here is of a rich continent, which contains many poverty-stricken societies. This is the pathology of a fragmented economy and technical knowledge.

Plantains is a common food plant dominant in Africa, Latin America and many parts of the world and serve as a staple food crops for some countries. Its scientific name is 'musa paradisiaca' It consist of underground stem the 'corm', 'bulb', or rhizome with 200-500 fibrous roots from which it propagate by sprouting or suckers. Thus, any policy of development and investment pursued by the state should be in the nature of a sucker of 'musa paradisiaca' for sustainable development. Its process of fruit production is known as parthenocarpie that is, without cross-pollination. Genetically, plantains are triploid with three (3) sets of chromosomes, which aid its propagation by suckers. It has the ability to regenerate from the corms and quickly recover when damaged by fire, flood and even wind (sustainability). Each corm of the plantain is able to propagate 3-9 suckers. Thus, any policy and investment meant for Sustainable Development, should act like the sucker of 'musa paradisiaca', that is, augment itself, for sustainable human development (Frank, 2015 :294).

### **The Potency of the Framework**

The plantain in this context represents the patriotic and benevolent leadership who understand the principles of sustainable development. The leadership then socialize the sustainable development programmes among the citizenry, who would then buy into it and support. This means the readiness run with the programmes or policy towards multiple ends. At every steps of the pursuit of sustainable development, knowledge would always be obtained from the internet where difficulties ensue in the processes of value addition.

### **Method of Study: Descriptive Research**

The subject matter of this study was approached using the descriptive study design, which sought to determine the 'nature of the situation' of development knowledge in the digital age as it existed at the time of the study. The focus was to describe 'what existed' with respect to the situation. It did not require any hypothesis testing because it sought data to assist in recommending the steps necessary for Nigeria to take advantage of the available data in the ICT age, which is freely available in the march towards sustainable development. Thus, it specified the nature of the phenomena (digital age) as being freely given on the internet and urge Nigeria to adapt and apply the information to achieve sustainable development (Ndiyo, 2005:70). The application of this method of study enabled the study to appraise the problem and draw inferences base of the available solutions offered by the digital age. It is instructive to note that it did not establish 'cause and effect relationship between Nigeria inability to achieve sustainable development in the digital age, rather it provided ample arena to draw solutions from the extensive field of the digital age for application in the drive towards sustainable development. Thus, it led to the establishment of trend analysis of development, which could be bolstered from the digital age for sustainable development practices. This is because whatever form of development trend is envisaged, the appropriate data are available in the internet to drive such development trend. The principal tool of data gathering in the application of this method of study is observation and the use of secondary sources of data. Thus, we would be applying this

methodology to evaluate issues of sustainable development at four levels of analysis; poverty, unemployment, inequality and self-reliance.

### **Sustainable Development in the Digital Age**

In this study, ‘Sustainable Development’ was conceptualized as ‘continuous growth or increase in the value of any useful material resources in a manner which does not compromise the need of future generations. This simply means that the quantity of resources the current or present generation have extracted from the earth should be multiplied or increased to meet the need requirements of the present people. The question to ask therefore was, ‘how can present generation do this in the digital age? The principles to be applied on any elements of sustainable development were defined as the ‘Spinoff and Value-Chain theories’ respectively, by every element was to reproduce its kind and spin a circle of multiplier effect on the resource at hand without necessitating further extraction (Frank, 2016: 56, 62).

In the context of this study ‘Development’ was conceived in the description of Dudley Seers (1969) as a phenomenon, which consists of four (4) major components viz; ‘reduction of poverty, unemployment, inequality and increase self-reliance’. The reduction of the first three elements and increase of the last would involve the following stages;

i) Leadership – this is one of the most critical element of sustainable development which has a very high deficit in Nigeria. One of the greatest tools to drive sustainable development is certainly leadership, the principles of defining a vision for a people, and mobilizing the people towards its achievement abound on the internet. The processes involving this could be obtained from several websites on the internet (example [www.mranet-](http://www.mranet-) [www.zapmeta.ng](http://www.zapmeta.ng), <https://www.leadercast.com/> Principles of leadership Excellence). The importance of this element of sustainable development cannot be overemphasized. This is because every successful nation has been driven to its level of development by leadership.



There are different forms of leadership which can drive sustainable development, according to Kholi (2004); in a 'coherent-capitalist states (South Korea) characterized by a cohesive 'rational –legal' central state and fairly clear distinction between the public (state) sector and the private enterprise, a benevolent dictatorial leaders who understand the principles of sustainable development is required. In a patrimonial state typified by Nigeria, where 'government officials regard public resources such as national treasury and other state assets as their own personal patrimony, to be plundered for their benefit or for the benefit of their favoured group. Patrimonial states tend to do badly in promoting economic development (Sodaro, 2008:374). What is required to achieve sustainable development is an educated, benevolent dictatorial leadership, who coerce everyone into a disciplined patterned of development, which is sustainable. The digital age provide an array of instances of this case history to learn from and improve the situation thereof.

ii) Human resources development- in order to take the state into the level of sustainable development, human resource must be developed. Rising productivity is the essence of progress, for changes in the process that result in greater efficiency or higher productivity however minor may be described as innovation-the fashioning or introduction of a new product is a function of human development(Yesufu, 2000 :319). When there is no education and innovation, development may not be sustainable. The various approaches of training the human resources abound on the internet <http://thehagueacademy.com/blog/2015/02/climate>. A high literacy rate of all social classes is required to drive sustainable development. Towards this end, literacy should permeate all social class of the citizens. This is the 'take-off' stage into sustainable development. Where this is difficult as in Nigeria, sustainable development would remain 'wishful-thinking'. Again, the digital age provide solutions to this.

iii) Poverty and Unemployment-the most common approach to these, is to site industries that would utilize the raw materials available and produced. In order to generate a sustainable solution to the twin problems of poverty and unemployment, all that the state requires is both robust present and investment in the economy. The markets for investments are both online and physical but the ruling elites must be committed to investments and exercise a degree of independence in strategic economic management because since the Qatar 2001 international trade negotiation, rich countries continued to impose barriers to the importation of goods from poor countries, they still subsidized their own farmers at the expense of farmers in the Third World; and they maintained a variety of trade rules detrimental to the less-developed countries(Sodaro, 2008: 376). Put differently, industrial development is herein canvassed by the state to reduce poverty and unemployment to the barest minimum. When they earn income then they would invest in other areas, which would enhance economic sustainability.



iv) Inequality- it is a truism that about 90 per cent of Nigeria resources are held by about 10 per cent of the population. This is because the political, bureaucratic and ‘business elites’ consider the country as their prebend, hence their patrimonial disposition in the use of the resources. This breed massive inequality. The state is required to intervene in order to redistribute and shift resources from this group in the society to the marginalized and excluded groups. The state could intervene in several ways which could include; (i) through taxes, on individual income, (ii) taxes on corporate income –where earnings of owners of capital are tax that might have otherwise escape taxation (iii) taxes on wealth –based on the value of assets held by a person or family e.g real estate and stocks-property tax (iv) taxes on consumption-paid on goods consumed or services enjoyed (airport tax, cigarettes) (Gruber, 2004:514).

iv) A progressive tax is a tax in which the tax rate increases as the taxable amount increases. The term "progressive" refers to the way the tax rate progresses from low to high, with the result that a taxpayer's average tax rate is less than the person's marginal tax rate. Progressive taxation has a direct effect on reducing income inequality. This is especially true if taxation is used to fund progressive government spending such as transfer payments and social safety nets. However, the effect may be muted if the higher rates because increased tax evasion. When income inequality is low, aggregate demand will be relatively high, because more people who want ordinary consumer goods and services will be able to afford them, while the labor force will not be as relatively monopolized by the wealthy. High levels of income inequality can have negative effects on long-term economic growth, employment, and class conflict. Progressive taxation is often suggested as a way to mitigate the societal ills associated with higher income inequality (Wikipedia, 2016 accessed 15/5/16).

v) Self-reliance –This is a function of disciplined leadership, domestic production and consumption in which there is reliance on one’s capabilities, judgement and resources. The processes abound on the internet including checking excessive corruption of the ruling class. When infrastructures are improved, investment made and the human resources trained in science and technology couple with benevolent dictatorial leadership, self- sufficiency would be the outcome. In all of these areas, the principles of investment are the value –chain. When value of each resource extracted is increased by processing, manufacturing and satisfying local consumption, sustainable development would be given birth to in socio-economic management in Nigeria.

## Conclusion

The digital age is certainly the third wave of revolution that humanity have been exposed to out of research in science and technology. In the preceding sections of the study, it has been made obvious that though science and technology have made life easier to live, it has not been able to increase the land area for man's habitation. This is what has made the adaptation of sustainable development practice an inevitable one.

Sustainable Development is a sure way to progress and turn around the negative development indicators Nigeria had accumulated over the years because of disjointed or 'muddling-through' development programme strategies. The most critical element of this process with Nigeria does not possess is 'benevolent and dictatorial leadership'. All other factors are available on the internet; this is why it is a crucial partner in the march towards sustainable development.

### **Recommendations**

Everything rises and rest on benevolent, dictatorial and enlightened leadership who after mapping the resources available, declare his or the party vision for the state and define the strategies of getting to where he want to take the people. Every strategy should possess the property of 'musa paradisica' (plantain) by which it would sprout into other elements of societal development.

Before sustainable development would take place, the elements for its growth ought to be provided, these include; literate populace, robust state investments (industrial and infrastructural), societal discipline fairness in sharing the pains and gains of the development processes. There must out of necessity be a means to monitor, evaluate and read off the development progress in the society.

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## E-GOVERNANCE AND DEMOCRATIC GROWTH IN NIGERIA

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### Abstract

*In Nigeria, even before the flag of independence in 1960, the country has been embarking upon the gargantuan task of nation-building in order to launch the country into socioeconomic security and prosperity. This is a good base for development and also the means by which people can easily express themselves. But this has been impossible due to combined factors of long term military rule in power, poor economic planning and irresponsible democratic leadership. The introduction of information and communication Technology (ICT) has increased daily engagement of the people globally. It improves from technology use to general way of living by redefining the way we do things generally. This has enhanced democratic governance across the globe. In Nigeria, the emergence of e-governance has begun and is set to transform the socio-economic and political structure of the country. This paper is an overview study of e-Governance and democratic growth in the Nigeria political system; it further explains the concept of e-Governance, the essence and various ongoing e-Governance activities in Nigeria. In order to achieve these objectives, the paper adopted secondary sources of data and theory of decentralization and democratization by Hiltz and Turoff's in 1978. They argued that decentralization and democratization leads to Socio-organizational change Revolution in IT systems, and could lead to the advancement of technology. The paper also looked at the impact and challenges of e-government implementation on democratic growth in Nigeria, vis-à-vis suggesting ways in which e-governance can be enhanced. The paper concludes that e-governance is the right way to go for democracy to thrive and flourish in Nigeria political system. In line with the conclusions, the paper recommends among others, that government should explore and decide which of the best global practices that aligns with her political environment.*



**Keywords-***E-governance; Democratic growth; Information Technology (IT); Service delivery; Nigeria; citizen.*

## **Introduction**

E-Governance is concern with the provisions of opportunities in other to increase the connection, availability and modes of interactions between governance at different levels and all the citizen of a country. E-governance is also a new system of governance or leadership, new approach of debating; a new method of deciding public policy and investment; new methods of attending to the citizens; another new ways of accessing education and new ways of organizing and delivering information and services. E-governance brings new concepts of citizenship, both in terms of citizen needs and responsibilities. The main objective of e-governance is to enable, engage, and empower all citizens (UNESCO, 2000 n.p).

Democracy as a system of government exercises power or of authority with the objective of managing the affairs of the state, and organization or a society.(Siftung,2008 pg.12) Since the inception of fourth democratic republic in 1999,Nigeria system of government operates democratically at the three tiers of government with central governance at the Federal level and the state at the middle point while the Local Government (LG) occupies the lowest level which often is refers to as the third tiers of government. In other to effectively manage both human and material resources and at the same time posit citizen as kernel to democratic regime, the issues of information dissemination to the populace are of great importance to governance in this information age. Thus, free permeation of information is expected to flow across the three tiers of government to the governed to foster awareness about government activities via information communications technology (ICT) and other viable medium. Citizen's freedom and welfare is central to democratic governance. Therefore, it is highly expected that the information retrieval, and or passage between the government and the governed must be continuously improved upon with appropriate technologies in place, especially at the LG areas in other to achieve true democratic growth.

In line with the above, this study provides insights on the role that ICT plays in promoting the participation of citizens in democratic governance processes. And in doing so, it explore evidences of e-participation in Nigeria and unveils issues of scalability and replicability that needed to be tackled.

## **Research Method**

This article adopts a qualitative research method. Secondary data sources are explored. Recent empirical research outcome on the subject matter from high impact journals and good scholarly contributions from textbooks serve as basis for both theoretical and empirical premises on which this research outcome is justified and recommendations offered.



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

For easy and comprehensive understanding of the work, the study adopts some various concepts like;

#### **Concept of Information and Communication Technology (ICTS)**

It is important to understand what Information Communication Technology is all about before understanding the concept of E-governance. ICT is a scientific study of artifacts that is used to give form to facts in order to provide meaning for decision making, and artifacts that can be used for organization, processing, communication and application of information (Darnton and Giacoletto2004.n.p). According to Gant (2008), Information Communication Technology in governance provides the framework for cost reduction in the provision of information and services to the people. Information Communication Technology is the activity of designing, constructing and maintaining communication system (Johnson, 1996). ICT has the potential to engage people in all areas of the political process such as the generation of information, enhanced deliberation among citizens, and to enhance participation in decision making process (Briony, 2003).

Communication is very important in all human endeavors, it is what decides the identity of every human beings. Present “Modern society is turning into an information society and communication is the exchange of information. It is the process of transferring information from a Sender to a receiver with the use of a medium in which the communication information is understood by both sender and receiver” (Ismail 2009:pp10).

#### **Conceptual Clarification of E-Governance**

According to Moon (2002), E-governance is the use of information technologies (such as the Internet, the World Wide Web, and mobile computing systems) by government agencies which improves their relationship with citizens, businesses, different areas of government, and other governmental bodies. Electronic system of governance helps to deliver government services to their citizens, improve the interactions with businesses and industries, and provides access to information. E-governance is referred to as the use of emerging information and communication technologies in order to facilitate the processes of government and public administration (Drucker, 2001). The above definition place enhances on the use of ICT to assist in the administration or management of government.

According to Narayan (2006), e-Governance is different from e-Government, but the focus is primarily on technology related initiatives in the government domain. E-Governance is of a wider vision and use of Information Commutation Technology to support good governance and encourage citizens to proactive opportunity to provide information unencumbered. Coleman (2008) refers to E-governance as the digitized coding, processing, storage and distribution of

data which relates to the three key aspects governing societies; the representation and regulation of social actors; the delivery of public services; and the generation and circulation of official information. E-governance should be seen as having, more than just a website on the Internet but rather a system of government to ease democratic system (Fatile, 2012, pp-44.). One of the objectives of e-governance is to make available governance for all parties, government, citizens and businesses (Fatile, 2012). In this regard, E-governance as an electronic means of state management system helps to support and stimulate good governance in any political system.

Basu (2004), submits that, "e-governance is used by government agencies for information technologies which have the ability to transform the relations between the citizens, businesses and different arms of government". E-governance helps to facilitate better government service delivery to the citizens, improve the interactions between businesses and industries, citizen empowerment through access to information, or more efficient government management. The result from these activities could be less corruption, increased transparency, greater convenience, revenue growth and cost reductions. Chatfield (2009), define e-governance as the use of information and communication technologies, most especially the internet, to render government information and services to the people. Electronic governance is perceived as the use of ICT to promote efficiency and cost effective government, to facilitate more convenient government services, allow greater government access to information, and also make government more accountable to the people (World Bank, 1992.n.p.).

E-government helps to overcome distance and time barriers. The traditional barriers to communication, is one of the greatest potential of the emergent global network. It therefore permits instant sharing of knowledge and information on a global scale and enable easy democratic system of government (Basu, 2004).

### **Concept of Democracy**

According to Appadorai (1975) in Igwe, Liga E (2010:pp-3), democracy is a system of government where people exercise their governing power either directly or through their representatives periodically elected by the public. Ununu (2005.n.p) argues that democracy is essentially a method of organizing the political system. He explains five basic elements without which no community can call itself truly democratic system. These elements are equality, sovereignty of the people, respect for human life, the rule of law and liberty of the individual. Giddens (1996) defines democracy has a political system that allows the citizens to participate in political decision making, or to elect representatives to government bodies.

According to Ntalaja (2005:n.p.) democracy is a universal system of rule with unique manifestations in time and space. Also democracy according J.S Mill quoted in Agena and Odoh (2005), is a system of superior to other types of government, under these system of government, the rights of every citizens are secure from being disregarded only when the person interested is himself able and habitually disposed to stand up for them; and is more widely diffused, in

proportion to them amount and variety of the personal energies enlisted in promoting it. The participation in governmental affairs lifts the individual above the narrow circles of his egoism and broadens his interest.

From the following concept above, it can be said that democracy is a veritable tool meant for national integration, socio-economic cohesion and all other developmental indicators in a political system.

### **E-governance Model**

Over the years there have been different theoretical approaches on electronic government. But from the various approaches, Electronic government is referred to as government use of technology, most especially web-based Internet applications to enhance the access and delivery of government information and service to the citizens, business partners, employees, other agencies of government and entities. Hiltz and Turoff's (1978), argue that Revolution in IT systems could lead to decentralization and democratization and also Socio-organizational change would be forced by the advance of technology

In Nchuchuwe (2015:pp18-20) the models of E-governance can be perceived in four (4) different ways, namely:

- Government to Citizens (G2C);
- Government to Government (G2G);
- Government to Employees (G2E); and
- Government to Business (G2B) (Nkwe, 2012; Yadau and Singh, 2012; Sameer, 2002; and Backus, 2001).
- **Government to Citizens (G2C):** This system of e-governance is meant for creating links and communication channels between the government and the people. G2C is geared towards the establishment of efficient, easy flow of interaction between the government and the citizens. The above is the main reason for adopting e-governance (Nkwe, 2012).

This model of e-governance, which creates a bond between government and its citizens are as follows:

- Sourcing for any government information that educates and enlightens the public;
- Making online registrations and applications;
- Payment of utility bills online;
- Filing of complaints via government websites that addresses grievances and infringements (Yadav and Singh 2012).

From the above, it is pertinent to state that government to citizen model has direct bearing on the relationship existing between E-governance and democracy as pictured from the bond-like services expected of democratic government.

- **Government to Government (G2G):** This model enables internet services among various government organizations at various levels of inter-governmental relations (Gant, 2008). This G2G model is known as the fulcrum of e-governance because the government agencies across the federal, state and local levels are expected to upgrade and modernize their internal mediums, and network and processes to a higher internet-compliant standard before they can use them to interact with the citizens and businesses of the outside world (Nkwe, 2012). This model of e-governance ensures that all governments and public organizations adopt the modern ICTs in networking and interacting with one another.
- **Government to Employees (G2E):** This model of e-governance helps to upgrade on the following; transparency, efficiency and effectiveness of the interactions between the government and its employees through the application of Information Communication Technology. Just like the G2G, the G2E is an internal innovation on the use of the internet and mobile communications with a view to improving internal operations and cost-effectiveness (Gant, 2008).
- **Government to Business (G2B):** This model helps in the procurement and delivery of goods and services between the government and the private sector through the use of ICT (Nkwe, 2012). This system of e-governance is the linkage between the public and private sectors through the medium of the internet, the web and mobile communications technology. Because of the large volume of goods and services that are delivered between the government and the private sector, government enables the internet based processes of procurement, also known as e-procurement (Gant, 2008).

### **Impact of E-governance on Democratic Growth in Nigeria**

Over the years e-governance has improved governance and brought government closer to the people. In Nigeria e-governance has made visible impact towards democratic growth, including improving administrative functions of government to the citizens which include the following;

- Effective and more cheaper management of processing information;
- Easy flow of information among the departments, agencies and layers of government;
- It enables professional administrators that are supported by standardised, electronically-embedded decision-making systems;
- Constant provision of services according to impersonal rules, as opposed to clientelist arrangements;
- Government Transparency, particularly in relation to the procurement of government services to the public;
- Opportunities for both government and private sector to work in partnership and modernizing governmental processes;
- Easy flow of information between government and the people;
- Enable intermediary democratic institutions, such as parliaments, local government, civil-society organisations (CSOs) and independent media; opportunities for citizens to participate more directly in policy development;

- A medium to combine both traditional and modern methods of accountability (Okeke, 2014).

### **Development of E-governance and Services Delivery in Nigeria**

According to Ojo (2014), e-governance originated from India in the 1970s. He explains in his work that this idea was born out of the intention of the Indian government to open the internal government such as the defense, economic planning and supervision, and information management system relating to elections, census, tax administration, etc to the public. Dawes (2008) also argues that e-governance drive was given a big boost in the early 1990s due to the “reinventing government” movement in America. This movement advocated for a paradigm shift from a government dogged with red-tape to a more innovative government that was “enterprising, catalytic, mission and customer driven and result-oriented” (Nchuchuwe, 2015). Digitalization system of governance received easy acceptance all over the world in the 1990s. While e-governance, which stands for electronic governance became the new focus of modern day governments which is all about using Information Communication Technology to enhance and support services delivery to the general public goods and services (Nchuchuwe, 2015). This system of governance is now embrace in Nigeria and is use to deliver services by government to it citizens.

Over the years, so many initiatives programs in Nigeria are development through the technological platform in the polity, these various programs aim towards connecting vital agencies, communities, educational institutions and institutions of Government at all levels with ICT and this are presently pursued by the government. From the National Rural Telephony projects to other laudable initiatives like the Nigerian telemedicine initiative, internet exchange point initiatives, Public service network initiative, State and local Government ICT facilities loan scheme initiative and wire Nigeria initiative (Sarumi. R. 2015 p 10). In current Nigeria, the citizens can easily access the states and local allocations on the Ministry of Finance website and making comparizm between the estimated values locally (through the in-house package) within the local government and reasons on why and where the expenditure use for can be deduced almost instantaneously (Suleiman *e tal* 2010).

In Sarumi (2015 p9), Suleiman (2010) cited that some of the examples of e-government component in Nigeria are the computerization of Resident Permit by the Nigerian Immigration Service, the Nigerian Customs Assycuda Programme, and computerization of land and Certificate of Occupancy in the Federal Capital Territory Administration (FCTA). In most organizations employees and salaries/ wages are computerized i.e. (E-Payment), the obtaining and checking of result online; National Examination Council (NECO), West Africa Examination Council (WAEC) and Joint Admission and Matriculation Board (JAMB), also the checking of



National Youth Service Corps (NYSC) postings are part of new development and cost effective services which are part of e-government service (Sarumi. R. 2015, p9).

### **E-governance and Democratic Improvements in Nigeria's E-Administration**

According to Okeke, et al (2014), the different objectives of these concepts within Nigeria context include the following;

- . It enables cheaper and effective management and processing of information;
- . It allows free flow of information between various departments, agencies and layers within government;
- There are more professional administrators, supported by standardised, electronically-embedded decision-making systems.

In addition, in the recent past, information technology has enhances citizens political participation in the following ways; Afford provision of services according to impersonal rules, as opposed to clientelist arrangements;

Promote transparency in poll through the adoption of card-reader machines which checks multiple voting and minimises rigging.

Enable government to work in partnership with the private sector in modernizing governmental processes;

Facilitate free flow of information among government and the citizens;

It enables intermediary democratic institutions like the parliaments, local government, civil-society organisations (CSOs) and independent media; opportunities for all citizens to participate easily or directly in policy development;

It gives opportunities to combine traditional and modern methods of accountability.

The above identified positive side of electronic to both management and democracy in Nigeria notwithstanding, the overall spread effect on the entire citizenry, more importantly among country side dwellers coupled with low literacy level of adult rate 56.9% (National Bureau Statics, 2013. n.p) generally cannot be argue to have a full strength effect.

### **Challenges of E-governance and Democratic Growth in Nigeria**

In most democratic countries all over the world, e-governance is adopted by leaders to facilitate the processes of government and public administration but not without challenges. (Drucker,2001)Nigeria challenge in this regard is similar to most of other developing countries in the world. Democracy is presently a global maiden which every nation woos. Democratic system of government is moving across the whole world today, from the nation states in the former

Soviet Union and Eastern Europe to both Africa and Asia countries. It is obvious that democracy has gathered momentum across the globe as a result of its immense advantages and by implication because of the negative consequences of bad governance (Bello-Imam and Obadan M.I., 2004.p1). This movement in the present world is used for expression of the will of the people. Nigeria, which is regarded has one of the most populous country in Africa has no choice than to align itself with the rest of the world on the democratic crave.

However, Nigeria has not been so lucky to be democratized. Nigeria has had long tortured history of dancing around democracy but yet has not gotten it right. And this is due to some challenges like; lack of large scale free, fair and credible election; lack of freedom of speech and publication; refusal to accept defeat in elections by political gladiators; corruption and attitude of political office holders to corner the wealth of the nation; inobservance of rule of law; and long military rule (Adekola 2010.p1). There is relatively free, fair, and credible elections in Nigeria in April 2011 and 2015 election, though not without hurdles, this shows that the light is beginning to show at the end of the tunnel.

For several years, Nigerian government has failed to harness the vast human and material resources at its disposal to break the cycle of poverty and autocracy that has characterized it since independence in 1960. Nigerian state has been constantly struggling between the forces of democracy and authoritarianism, also with the pull of development and underdevelopment, the popular factor of public corruption and the pressure of accountability' (Kesselman et al. 1996: 616). And, it has 'deviated from the known curve of consolidation to de-consolidation" (Odion-Akhaine et al. 2007: 1). All this can be traced to Nigerians colonial legacies in the African continent. As an offshoot of the colonial praetors, the Nigerian state retains parts of the authoritarian ethos. Instead of been at the service of the citizens, rather it is at the service of the ruling oligarchy (Fagba-debo 2009: 1). On October 1, 2015 the Nigerian state celebrated 55 years of independence and specifically, on the 32rd of May, 2015 celebrated fifteen years of democracy.

According to Nchuchuwe (2015:p28), among several authors view; one major challenges of e-governance implementation in Nigeria is poor internet and telecommunications infrastructures. Fatile (2012) explain in his work that facilities meant for effective e-governance are still insufficient or substandard. One may wonder that despite the seemingly increasing trend of telecommunication industry in Nigeria, e-governance is yet to take its rightful place in polity. Nchuchuwe (2015 p28), Coleman (2005) identifies three major barriers which most African countries including Nigeria must avoid to overcome in adopting e-governance so that the exercise does not end up in failure. These include:

- Adopting technologies without developing human skills and capacities to manage integrate and sustain them;

- Centralizing the use of technologies by national government departments, without devolving the benefits of technology to intermediary institutions such as local government, parliament, parties, civil society organization and the independent media;
- Failing to link better governance to broader and more inclusive democracy which gives voice to those who cannot afford technologies but have needs and ideas to express.

Therefore, government and policy makers including the implementers of public policies should not over look the ultimate aim of drafting ICT policies purposely for e-governance in Nigeria which is to deliver effective democratic system and public goods and services to the public.

### **Conclusion**

This paper focus on e-governance and democratic growth in Nigeria. It explains that the application of electronic governance to government has emerged as the most radical development which has enabled easy democratic system. Nigeria has started moving towards this direction, and the relevant organs of government in charge of ICT and e-governance are commended for the little degree of service offered so far. There is no dough from the above that e- governance facilitates the relationships between the citizens and government agencies, decision-making and reduction in cost of governance. But this paper submits that poor internet service and information infrastructure greatly impede its direct proportional flow of impact on democracy and governance. If Nigeria is to accrue the benefits of e-governance maximally, it is expedient to consciously drive her ICT toward this direction without further delay and intensify effort to groom its populace for same purpose. It is not gainsaying and cannot be disputed that e-governance is the right way to go for democracy to thrive and flourish in Nigeria political system.

### **Recommendations**

- 1- Basic education for all must be pursued with a more sense of diligence across nook and cranny of the country with a view to enhancing both literacy level necessary for e-governance in democratic regime and skilled manpower for economic growth.
- 2- Nigeria government should collaborate with both indigenou and international ICT firms to develop a harmonized framework suitable for Nigerians (customised technology).
- 3- All government practice, including fiscal issues, should be made transparent to every Nigeria Citizen which political leaders are accountable to.
- 4- Rule of law must be highly upheld and adhere to in both political and administrative management of Nigeria.

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***Privacy, Trust and Confidentiality in E-governance***



**e-Governance Conference**

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**PRIVACY VIOLATIONS, BREACH OF CONFIDENTIALITY AND  
TRUST OF USERS BY GSM TELECOMMS SERVICE PROVIDERS IN  
NIGERIA**

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**Abstract**

*Until about fifteen years ago, not many people, in Nigeria, are familiar with the subscription to and the use of Global System for Mobile Communication (GSM) Telecoms services. However, the deregulation of the Telecoms industry brought about the introduction of key players but this has not been without some pros and cons. Some of the benefits the industry serve to users include, ease of communication, text messaging, easier access to surfing and more. In spite of this, not many users are aware of the volume of customer right abuses that go on as they use these platforms. Mostly, such violations occur in the areas of breaches of consumers' privacy, confidentiality and trust. Therefore, this paper examines the level of privacy violations, breach of confidentiality and trust experienced by users of GSM Telecoms services in Nigeria. A structured questionnaire was used to collect field data from users of two foremost GSM Telecoms service providers in Nigeria – Mobile Telephone Network (MTN) and Air Telecommunications (AIRTEL). The population of study is mainly One hundred and twelve students selected through purposive sampling technique. Findings from this study indicated high level of privacy violations, breach of confidentiality and trust of users by GSM Telecoms service providers in Nigeria. These violations occur in the form of misuse of customer data, sending unsolicited adverts and calls to customers. The paper concludes that these abuses will last until appropriate policy laws are enforced by relevant regulatory bodies and platforms that protect consumer rights is activated.*

**Key words:** *Privacy, Violations, Confidentiality, Trust and Breach*

**Introduction**

The era of Global System for Mobile Communication (GSM) Telecoms services in Nigeria dates back to 2001. The emergence was as a result of the deregulation of Nigeria Telecommunications (NITEL) industry by the Federal Government of Nigeria due to problems of inefficiency and

infrastructural deficiencies. No doubt, the deregulation exercise brought about monumental changes in the telecommunications industry and history was made through milestone achievements, easier access of communication and relay of messages made many people attracted to telecoms service providers.

GSM telecoms service providers are described as Internet Service Providers (ISPs) by most Nigerians. In this regard, an Internet Service Provider (ISP) is an entity that connects people to the internet and provides other related services such as website building and hosting (Chaubey, 2008). It can also mean a company that is performing multitude of services over the Internet (Just, 2001). However, over a decade of being around, most of the GSM telecoms service providers are failing to meet up with customers' expectations due to several challenges such as technical hitches, network failures, instability in power supply, network congestion, poor connectivity, among others (Adegoke & Babalola, 2011).

The evolvement of GSM telecoms service Providers opened several opportunities for Nigerians and Non- Nigerians especially in the area of investment and employment in the country. Apart from this, it brought about keen competition amongst the service providers which contributed to the rendering of unparallel and exceptional services at the inception of these organizations. Also, individuals and corporate organizations also benefited through the production and sale of bye-products such as mobile phones, airtime cards, SIM cards, modems and phone accessories (Ojo, 2011). The mobile phone market in Nigeria had since experienced an unprecedented growth due to an increase in the total number of mobile phone internet subscribers. For instance in 2015, The Nigerian Communications Commission (NCC) recorded that mobile phone internet subscribers increased to 93 million and above (Vanguardngr.com 2015).

Without any gainsaying, GSM telecoms providers in Nigeria have caused a positive change in the telecoms industry due to several benefits gained by users such as ease of communication, text messaging and easier access to surfing (Tella, Adetoro & Adekunle, 2009). More interesting is the fact that an average Nigerian – children, teenagers and adults- can perform several functions on their mobile phones irrespective of location or distance.

In rendering effective services, GSM telecoms providers usually collect, process and store personal identifiable information (PII) of their users as mandated by the NCC. The NCC is one of the regulatory agencies that ensure that GSM telecoms providers operate within the rules and regulations governing their operations. However, due to the lack of a legislative framework on data protection in Nigeria as reported by Jemilohun & Akomolede (2015), it had been observed over time that most of the GSM telecoms providers commit offenses wittingly by the misuse of users' personal identifiable information in their custody, thereby violating customers' privacy. Jemilohun & Akomolede (2015) posited that lack of an enforcement agency in Nigeria, had contributed to the violations that now appear to be entrenched in most of the GSM telecoms companies. The implications of these kinds of violations had led to series of breaches of confidentiality and trust of users. Unfortunately, most Nigerian citizens are not aware of their rights to privacy and the misuse of their personal identifiable information (PII). Due to the non-

existence of a robust legislative framework for data protection in Nigeria and consumers' protection rights, users' rights are easily violated without any form of restraints on their part.

In the light of the above, the main aim of this paper is to unravel the various privacy violations, breaches of confidentiality and trust experienced by users of two foremost GSM telecoms providers in Nigeria. This paper will further delve on the concept of privacy violations, breach of confidentiality and trust. Furthermore, this paper will identify various ways users' rights can be duly protected. Lastly, conclusion and recommendations will equally be made.

### **Concept of Privacy**

Privacy literally connotes freedom of being let alone or freedom from interference by government or from surveillance and monitoring. Privacy denotes a fundamental human right as reflected in the constitution of most countries. The Nigeria's constitution, section 37 of the 1999 Constitution of the Federal Republic of Nigeria provides that "The privacy of citizens, their homes, correspondence, telephone conversations and telegraphic communications is hereby guaranteed and protected" (Nigeria's Constitution, 1999). By implication, every Nigerian citizen has a right to privacy covering the specified areas. However, the freedom to determine who accesses one's personal information was not emphasized in this law.

Another perspective to privacy is the right to protect one's personal identifiable information. In other words, privacy is the right to control or influence what information is collected, stored and by whom and to whom information may be disclosed (International Telecommunications Union, 2003). Privacy is also associated with technical terms such as cryptography which ensures that data or information is not disclosed to a third party, but rather access is restricted to or protected from misuse ((International Telecommunications Union, 2003).

In the context of GSM Telecomm service providers in Nigeria, they are guided by rules/bills protecting misuse or abuse of customers' rights. Unfortunately, these rules or guidelines are not followed strictly due to non existence of enforcement machinery. Some of these bills include among others, Data Protection guidelines principles, National Information Technology Development Agency Draft guidelines and Computer Security and Critical Information Infrastructure bill. A critical look at each of these bills revealed several gaps in the area of enforcement and implementation (Jemilohun & Akomolede, 2015). Up till now, enforcement machinery has not been put in place by the Federal government to address issues of misuse of PII and series of privacy violations experienced by users of GSM Telecoms Service providers.

### **Privacy Violations by GSM Telecoms Service Providers in Nigeria**

Since the emergence of GSM service providers in Nigeria, the right to privacy of individuals has not been given due recognition as expected. It then means that privacy violations may occur intentionally or unintentionally, if the policies guiding the use of personal identifiable information are not followed. Privacy violations involve unauthorized collection, use, disclosure or disposal of personal information (Acquisti, Friedman & Telang, 2006). It could be referred to

as intruding into the private space of individuals without their permission. In relations to GSM service providers, privacy violations occur in different forms such as sending unsolicited text messages, calls and adverts to users without due consent. These aberrations have always constituted a nuisance to the customers. In a paper titled “ Regulation for Data Protection in Nigeria: A Call for Legislative Framework” by Jemilohun & Akomolede, (2015), it was revealed that most of the GSM telecoms service providers do not respect the right to privacy of citizens due to series of unsolicited messages sent to their phones daily. However, these violations can be checked and reduced to the barest minimum if the rules governing the use of personal information are made public, therefore preventing misuse on the part of the service providers and safeguarding the interest of the public.

### **Breach of Confidentiality and Trust of Users by GSM Telecoms Service Providers**

The concept of confidentiality entails protecting an individual’s privacy by securing adequately the information that had been divulged in a relationship of trust with the expectation that this information will not be divulged to third parties (National Human Genome Research, 2005).

Confidentiality and trust are two concepts that have inextricable link, therefore, high level of confidentiality breeds high level of trust and vice versa. Confidentiality in business assures customers that they can rely absolutely on the judgment of the organization, and the belief that the organization will work in their best interest. This implies that the organization should not be involved or do anything that can infringe upon or destroy her customers’ trust. In the case of GSM Telecoms Service providers, confidentiality of users’ personal identifiable information cannot be overemphasized. There appears to be no empirical studies yet that had examined breach of confidentiality issues and trust of users. However, it can be said emphatically that due to several challenges facing these organizations, and in the bid to survive in this harsh environment, issues revolving around breaches of confidentiality and trust of users abound in varying dimensions. These challenges include systems breakdown, infrastructural deficiencies, and network failures among others.

One must note that breach of confidentiality and trust occurs whenever an organization fails to meet up with customers’ expectations. In this study, breach of confidentiality and trust is seen in the context of GSM service providers misusing users’ personal identifiable information and failure in adhering to the rules and regulations governing their operations. Therefore, this paper intends to examine the degree of breach of confidentiality and trust of users by GSM service providers in Nigeria as a way of determining their level of conformance to the rules governing their operations.

### **Research Objective**



The main purpose of this study is to examine privacy violations, breach of confidentiality and trust of users of GSM telecoms service providers in Nigeria. This study is guided by the following sub-objectives:

- (i) To identify types of privacy violations encountered by users of GSM telecoms service providers in Nigeria.
- (ii) To identify the various breaches of confidentiality encountered by users of GSM telecoms service providers in Nigeria
- (iii) To identify the various breaches of trust encountered by users of GSM telecoms service providers in Nigeria
- (iv) To suggest policy options in preventing privacy violations, breach of confidentiality and trust of users of GSM telecoms service providers in Nigeria.

### **Research Questions**

This study is guided by the following research questions derived from the above objectives

- (i) What are the types of privacy violations encountered by users of GSM telecoms service providers in Nigeria?
- (ii) What are the breaches of confidentiality encountered by users of GSM telecoms service providers in Nigeria?
- (iii) What are the breaches of trust encountered by users of GSM telecoms service providers in Nigeria?
- (iv) To suggest policy options in eradicating privacy violations, breach of confidentiality and trust of users by GSM telecoms service providers in Nigeria.

### **Methodology**

The methodology adopted for this study was a survey research design using descriptive statistics to analyze data. A structured questionnaire was designed to elicit responses from the respondents.

### **Population of Study**

The population of study comprised of mainly students from the Faculty of Communication and Information Sciences, University of Ilorin, Ilorin. Students were selected from three departments comprising Computer Science, Information Science and Telecommunication Science respectively. Students who are users of the two foremost GSM telecoms service providers were selected purposely for this study.

### **Sampling Technique**

Purposive sampling technique was adopted for this study by selecting students who were users of Mobile Telephone Network (MTN) and Air Telecommunications (AIRTEL) respectively. This was done mainly to carefully select users that meet the requirement for this study.

### **Procedure for Data Collection**

The researcher distributed a total of one hundred and fifty (150) copies of questionnaire to students in the faculty of Communication and Information Sciences. A total of One Hundred and Twelve (112) copies of questionnaire were returned valid and analyzed, therefore, constituting a rate of return of 75% above the minimum benchmark of 60%.

### **Sample Size**

A total of One Hundred and Twelve (112) students constituted the sample size of this study selected mainly from three departments in the Faculty of Communication and Information Sciences (FCIS). Due to time constraint, data collection was limited to only students in FCIS.

### **Instrumentation**

A structured questionnaire was designed to elicit responses from the respondents. The questionnaire was divided into four sections. Sections A captured the demographic information of students, section B majored on types of privacy violations comprising of four items, section C comprised of breaches of confidentiality and trust (four items each) and section D constituted open ended questions designed to capture information on protection of users' rights.

### **Validity and Reliability of Research Instruments**

Self developed scales were used to capture the opinions of students on their GSM service providers. Three scales were used for this study namely: privacy violation scale (PVS), breach of confidentiality scale (BCS), breach of Trust scale (BTS) respectively. The research instruments were given to two experts in the field of information science to determine their face validity. The experts' opinions revealed a high face validity of these scales after several reviews and corrections.

Furthermore, reliability measures were established on each of the scales to determine the extent to which it measures what it purports to measure. Cronbach Alpha of the three scales revealed the following scores: Privacy Violation Scale (0.63), Breach of Confidentiality scale (0.61) and Breach of Trust Scale (0.7). The reliability coefficient measures ranging from (0.6 to 0.7) reveal that the scales were reliable.

### **Presentation of Results**

Field data was analyzed using Statistical Package of Social Sciences (SPSS) version 16.0. The results of the analysis are presented below: These results are presented in line with the research objectives of study outlined above.

**Table 1: Demographic Information of Respondents**

Age	Frequency	Percentage (%)
Between 16 – 25 years	93	83.0
ABV 25 years	19	17.0
<b>Gender</b>		
Male	72	64.3
Female	37	33.0
<b>Course of Study</b>		
ICS	55	49.1
ICS	30	26.8
CSC	22	19.6
TCS		
<b>GSM Provider</b>		
MTN Users	63	56.2
AIRTEL Users	6	5.4
BOTH	43	38.4

As shown in Table 1 above, the demographic information of respondents in this study revealed the following: 93 students ranged between 16 -25 years (83.0%), while 19 were above 25 years (17.0%). Gender constituted 72 males (64.3%) and 37 females (33.0%). The course of study comprised of 55 (49.1%) were students in Information and Communication Science department, 30 (26.8%) were students in Computer science department while 22 (19.6%) were students in the Telecommunications Science students respectively. Users of GSM telecoms providers comprised 63 (56.2%) patronized MTN, while 6 (5.4%) were AIRTEL users and 43 (38.4%) were combined users of the two service providers

**Table 2**

**(ii) Frequency Distribution Table Showing Types of Privacy Violations Experienced by Users of GSM telecoms service providers**

Types of Privacy Violations	SA (F %)	A (F %)	D (F%)	SD (F %)
I always receive unsolicited calls on my phone from my service provider.	63 (56.2)	45 (39.3)	5 (4.5)	-
I often get unsolliited text messages on my phone from my service provider.	85 (75.9)	24 (21.4)	3 (2.7)	-
I often get unsolicited adverts on my	56 (50.0)	49 (43.8)	5 (4.5)	1 (0.9)



phone from my service provider.				
I receive a lot of calls from my service provider on irrelevant subjects	43 (38.4)	39 (34.8)	21 (18.8)	7 (6.2)

Table 2 above reveals the frequency of occurrence of privacy violations experienced by users of MTN and AIRTEL. Privacy violations mostly experienced by majority of students include unsolicited text messages (75.9%), unsolicited calls (56.2 %) and unsolicited adverts (50.0%) respectively. This is an indication that users are being bored with information that is not needed or useful therefore constituting nuisance to the users.

**Table 3**

**(iii) Frequency Distribution Table Showing breaches of confidentiality encountered by users of GSM telecoms service providers**

<b>Breaches of Confidentiality</b>	<b>SA (F %)</b>	<b>A (F %)</b>	<b>D (F%)</b>	<b>SD (F %)</b>
My personal identifiable information is given out to other organizations without my consent	15 (13.4)	42 (37.5)	44 (39.3)	11 (9.8)
My service provider had asked me to provide my personal information again due to thier system's breakdown.	49 (43.8)	30 (26.8)	27 (24.1)	6 (5.4)
I feel I am not getting what I bargained for from my service provider(s).	36 (32.1)	48 (42.9)	22 (19.6)	5 (4.5)
I feel that my personal information is not secured with my service provider(s) due to third party access	33 (29.5)	50 (44.6)	23 (20.5)	5(4.5)

As shown in Table 3 above, breaches of confidentiality of user occurred in varying degrees. For instance, 43.8% of the users agreed that their service providers had asked them to provide their personal information for recapturing. Also, 42.9% of users agreed that they are not getting the services they bargained for from their service providers. Furthermore, in connection with the high level of unsolicited adverts from third parties, 44.6% of users felt that their personal information is not secured with their service providers. On the contrary, 39.3% of users disagreed that their personal information is given out to other organizations. This depicts that in spite of the various breaches of confidentiality experienced by users, some of the users still exhibited a positive attitude towards their service providers.

**Table 4**

**iii) Frequency Distribution Table Showing Breaches of Trust Encountered by Users of GSM Telecoms Service Providers**

<b>Breaches of Trust</b>	<b>SA (F %)</b>	<b>A (F %)</b>	<b>D (F%)</b>	<b>SD (F %)</b>
I always experience incessant network failures from my service provider (s).	37 (33.0)	56 (50.0)	17 (15.2)	1 (0.9)
I notice that fraudulent charges are often deducted from my account after a call/SMS.	56 (50.0)	37 (33.0)	15 (13.4)	1 (0.9)
My privacy has always being intruded upon by my service provider(s).	22 (19.6)	47 (42.0)	38 (33.9)	3 (2.7)
I am not satisfied with the services rendered by my service provider(s)	39 (34.8)	52 (46.4)	16 (14.3)	2 (1.8)

Table 4 above is a reflection of the different breaches of trust experienced by users of GSM telecoms service providers in varying degrees. 50.0% of users experience constant network failures from their service providers. Apart from this, 50.0% of the users also indicated that fraudulent charges are deducted from their account after a call or SMS. 46.4% of the users also indicated that they are not satisfied with the services rendered by their service providers. On the whole, the breach of trust of users is relatively on the high side based on the identified indicators.

**Discussion of Findings**

The findings of this study are discussed in line with the objective of study as indicated below:

The first objective of this study was to identify types of privacy violations encountered by users of GSM telecoms service providers in Nigeria. The results revealed a moderately high level of privacy violations experienced by users of GSM telecoms service providers. These privacy violations occurred in varying degrees based on their responses. For instance, privacy violations mostly experienced by majority of users include unsolicited text messages (75.9%), unsolicited calls (56.2 %) and unsolicited adverts (50.0%) respectively. This reveals that privacy violation is a common practice by service providers which need to be curtailed. Service providers may have their reasons for these occurrences, however users' privacy are being intruded upon either intentionally or unintentionally.

The second objective of this study was to identify the various breaches of confidentiality encountered by users of GSM telecoms service providers.. The results revealed a moderately high level of breach of confidentiality of users. 43.8% of users agreed that their service providers



had asked them to provide their personal information for recapturing. Also, 42.9 % of the users indicated that they are not getting the services they bargained for from their service providers. Furthermore, in connection with the high level of unsolicited adverts from third parties, 44.6% agreed that their personal information is not secured with their service providers. This depicts that users' personal identifiable information are being let out to third parties without users' consent, however, this has not been verified from GSM service providers in question. Recently, one of the GSM service providers mandated their users to re-register after the first registration had already been undertaken. Therefore, in ensuring high level of confidentiality personal identifiable information in the custody of service providers should be highly secured through several security mechanisms such as backup, off-site data storage and encryption among others.

The third objective was to identify the various breaches of trust encountered by users of GSM telecoms service providers in Nigeria. Results revealed different breaches of trust experienced by users in varying degrees. 50.0% of users indicated various breaches such as incessant network failures 50.0% of the users also indicated, fraudulent charges deducted from their account after a call or SMS and 46.4% agreed to the non-satisfaction with the services rendered by the telecoms service providers respectively. Breaches of trust of users are bound to exist unless the several challenges confronting these organizations are handled strictly.

On the whole, the findings of this study are in line with Jemilohun & Akomolede, (2015) who posited that GSM telecoms service providers in Nigeria flagrantly violate citizens' right to privacy. The lack of enforcement machinery can be adduced for the various privacy violations and breach of confidentiality and trust experienced by users.

### **Protection of Users' Rights against Violations and Abuses**

Rights of users need to be protected from numerous abuses such as privacy violations, breach of confidentiality and trust, and misuse of personal identifiable information among others. The following suggestions are recommended to protecting user's rights:

To start with, users should be enlightened by appropriate agencies through proper orientation programmes on their rights as users. When users know their rights, it will limit all forms of abuses by GSM service providers.

Again, consumer protection rights' agencies should be set up by Government and managed by relevant authorities. These agencies will help in pursuing and defending the rights of users' against all kinds of abuses.

Similarly, users' right and all forms of abuses should be documented and made public as a form of enlightenment and will serve as deterrence to potential offenders. This will help in curbing customer abuses and violations.

Lastly, an active consumer complaint commission needs to be established to look into matters concerning users' rights violations. Users of GSM services can seek redress through this commission in case their rights are being abused and violated.

### **Recommendations and Conclusion**

In view of the findings of this study, the following recommendations are made towards addressing privacy violations, breaches of confidentiality and trust of users by GSM telecoms service providers in Nigeria.

Independent enforcement machinery should be put in place to monitor and check the activities and operations of GSM telecoms service providers in Nigeria. The activities of service providers should be further reviewed to address issues of privacy violations and breaches of confidentiality and trust of users.

Also, in a bid to enforcing stricter compliance to rules for GSM telecoms service providers, Federal Government through relevant agencies and bodies should ensure enforcement of penalties and sanctions are meted out to service providers that fail to comply with the rules and regulations governing their operations.

Furthermore, various bills initiated by the Federal Government such Data Protection guidelines principles, National Information Technology Development Agency Draft guidelines and Computer Security and Critical Information Infrastructure bill among others should be passed into law by the National Assembly. Not only this, these rules should be enforced and reviewed to conform to best practices in other developed economies.

In conclusion, privacy violations, breach of confidentiality and trust of users by GSM telecoms service providers will persist until appropriate policy laws are enforced by relevant regulatory bodies and platforms that protect consumer rights is activated.

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**ONLINE DISPUTE RESOLUTION (ODR) IN NIGERIA: A POSSIBILITY OR A  
MIRAGE?**

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**Abstract**

*Since the world has become a global village, international transactions are now carried out within a very short time, thanks to technological advancement. However, at some point in time, disputes may arise from such transactions, whether off line or online. For this purpose, dispute resolution mechanisms are set up, the conventional one being litigation wherein disputing parties resort to the courts for adjudication on their disputes. It has become a trend that with litigation come the needs to file processes which sometimes require filing of bulky documentary evidence, all of which judges must read and consider. This has contributed in no small measure to the time consumption associated with litigation. This, among other reasons, has necessitated the need for alternatives to litigation, commonly known as the Alternative dispute resolution (ADR) which mechanisms include mediation, negotiation, arbitration and conciliation. The awareness of alternative dispute resolution (ADR) is on the increase (though not yet prominent) in Nigeria, especially in the corporate world. Corporate bodies are beginning to seek and embrace alternatives to litigation for several reasons which include the need to protect their corporate image, the speed in resolving disputes, the flexibility involved as well as the cost effectiveness that is achieved in the long run when compared with litigation, among other considerations. With the advancement in technology, it has become necessary to consider and possibly embrace the use of online platform also for*



*the ADR practices, and this is the rational for the concept of Online dispute resolution (ODR).*

**Keywords:** *Online Dispute Resolution (ODR), Arbitration, ICT*

## **1.0 Introduction:**

As long as the world remains, disputes or conflicts are and will be inevitable. Conflicts have been existing since time immemorial and in various forms. In fact, cases of unresolved disputes over time had degenerated into anarchy, acts of terrorism, and even wars and various ordeals – economically, socially and in other areas. The usual cause of disputes is conflicting claims and/or interests, which many times are remotely caused by differences in the perspectives of the parties to the disputes.

In finding solutions to the conflicts and/or trying to prevent the results of conflicts, various measures were adopted in resolving disputes between the parties. The nature of the conflict determines the practicable dispute resolution mechanism. The most common way of ventilating grievances over time has been the adversarial method, i.e. litigation, which involves instituting cases in the courts of law for adjudication on the dispute between the parties, and the decisions reached by the courts are always binding on the parties. Also, parties who are dissatisfied with such decisions are allowed to appeal to the courts vested with appellate powers to review such decisions; the decisions of the appellate courts are also binding and final (where that court is the final and highest arbiter of the land, or where no further appeal is filed to a much higher court).

It must be noted that litigation as a method of dispute resolution has been found to be rigorous, too formal or official and time wasting. For example an interlocutory appeal in the case of **Amadi V NNPC (2006)** lasted for 13 years before the Supreme Court ordered the case to be sent back to the trial court for hearing on its merit. Litigation is also expensive (in the long run), archaic and most unsuitable especially in resolving disputes in modern times (Stone, 1998, p.10). In addition, litigation usually resulted (and still results) in a win-lose situation, where disputing parties usually do not see each other as friends anymore even after the matter had been ‘settled’. These flaws, among others, have led to the emergence and adoption of alternatives, now referred to as Alternative Dispute Resolution, also known as ADR(Nwosu, 2007).



It is of utmost importance to note that the practice of ADR is neither recent nor new. It has been practised for many centuries, or even Millennia. In his days, Jesus Christ did recognize alternative to appearing before a Judge (litigation), which can be called ADR in the modern parlance. He said in Matthew 5:25 thus: “agree with your adversary quickly, while you are in the way with him, lest your adversary deliver you to the judge, the judge hand you over to the officer.....” In other words, litigation may lead to unsavoury consequences.

Apart from the instance stated above, there are some conventional ways by which different communities in Africa and other places have been resolving disputes in different areas, whether matrimonial causes, land disputes, business disputes or other matters. For instance, in the pre-colonial era, the different ethnic groups that now make up Nigeria had their peculiar customary ways of settling disputes. In fact, litigation was an imported practice or system in the dispute resolution system in Nigeria. And till date, in spite of the British colonialists’ interference, customary ADR and arbitration still subsist in these local communities. For instance, in one of the Igbo communities, there is a market day called ‘Nkwo Ono Na Ulo’, when the elder often converge at the village square to resolve disputes among members of the community. The elders usually adopt different methods and approaches within the traditional setting, depending on the nature of the dispute, to assist the parties to settle their differences and be reconciled to each other. To this end, the disputants are sometimes made to embrace each other or even share palm wine from the same cup as part of the settlement (Nwosu, 2007).

The probable reason for the colonialists’ interference with the customary dispute resolution processes was that some of the pre-colonial traditional systems involved the use of ridicule, witchcraft or even threats of ostracism as means of persuading disputing parties to arrive at some resolution. Therefore, the whole system was misunderstood and discarded as being unduly manipulative as well as coercive, hence the introduction of litigation. While some of these practices were questionable, it did not and does not make the entire traditional system of dispute resolution obnoxious. As a matter of fact, the modern concept and practice of ADR attest to what had been in practice since ancient times in the local communities. The recent development is just a re-introduction and an improvement on the already existing system.

## **2.0 ADR Processes**

The practice of ADR is now gaining global recognition due to the numerous advantages and benefits it has afforded disputing parties. It has been split into different forms, which include mediation, negotiation, arbitration, among others. And these forms or mechanisms will be discussed briefly hereunder.

## 2.1 Negotiation

This mechanism has been described as the most commonly adopted (at least as an initial step) process of dispute resolution. This is because negotiation basically involves direct discussions or communication (as it could be oral or in writing) between the concerned parties with a view to resolving their differences or at least understanding their different position (Shaw, p.918). This method of dispute resolution does not involve any third party, unlike in mediation.

Also, because of its features, negotiation has been described as the basis of all consensual ADR activities. This is due to the fact that it is usually held on a confidential basis and “without prejudice” to any legal recourse to which the parties may have a right. It also enjoys flexibility as parties can generally schedule the process of negotiations on their own, avoiding the adversarial way of resolving their dispute ([www.ictregulationtoolkit.org](http://www.ictregulationtoolkit.org) accessed on 12-05-2016). Obviously, parties to investment disputes would in most cases prefer to first explore negotiation, as their disputes may be resolved at that stage.

In addition, negotiation serves as a precursor to other settlement procedures, as the parties at that stage decide amongst themselves how best to settle their differences. It is however to be noted that negotiations sometime fail, as they depend on certain level of mutual goodwill, flexibility and sensitivity. Thus, a party to the dispute may be unyielding and maintain its position through the period of negotiation. And in such a situation, the negotiation process is most likely to fail as the parties may not come up with any acceptable negotiable agreement (Shaw, p. 919).

While negotiation generally is discretionary, as either party may initiate it, there are cases where parties to certain bilateral or multilateral agreements/treaties have specific duties imposed on them by such instruments. For example, Article 7 of the Turkey-United Kingdom Agreement for the Promotion and Protection of Investments (also known as the Turkey-United Kingdom BIT) provides that unless the dispute cannot be resolved through the diplomatic way (which includes negotiation), parties can submit their dispute to the arbitration with regard to the dispute settlement provision in the BIT (Bilateral Investment Treaty). Also, Article 9 of the United States-Nigeria BIT (2000) specifically states thus: “Any dispute between the parties relating to the implementation and interpretation of this Agreement will be resolved through consultations and negotiations”.

Apart from the duties imposed by some BITs and multilateral agreements, tribunals may also direct disputing parties to enter into negotiations in good faith wherein some factors are to be considered in the course of the negotiations. Therefore, where there is an extant obligation on the

parties to negotiate, there is also an implied obligation to pursue such negotiations for with the aim of arriving at a solution. However, this does not necessarily imply an obligation to reach an agreement compulsorily through negotiations (German External Debts Case, 47 ILR, pp.418 & 454). All the parties have to do is to negotiate in good faith and pursue same as far as possible with the ultimate goal of concluding agreements.

Negotiation, as earlier noted, is one of the first steps to be taken towards the resolution of disputes. Therefore, where it fails, the disputing parties are not barred from exploring other procedure or processes of settlement. Negotiation, like some other ADR processes, is just a diplomatic approach towards conflict resolution between the parties to a dispute.

## **2.2 Mediation**

This is a step further which disputing parties can take in an attempt to settle their differences. During negotiations, parties tend to have emotional attachment to their positions, which in turn prevent them from shifting grounds and reaching a compromise. Where mediation is employed, this problem could be solved.

Mediation process involves the use of an impartial third party, called the Mediator, to encourage the disputants to come to a settlement. The role of the mediator is to facilitate the resolution of a dispute by the agreement of the parties. The parties are in control of the whole process from the onset (i.e. from the appointment of a mediator) till the end (i.e. the outcome of the process). The mediator only acts a facilitator and assists the contending parties to reach satisfactory terms for the resolution of the disputes by themselves (Shaw, p. 921).

The third party that acts as a mediator can be an individual (or individuals), a State or group of States or an organization. In fact there are several institutions all over the world that provide, inter alia, mediation services for parties that submit their disputes to those organizations or parties who are members of those organizations.

Negotiation and mediation are ADR processes which several business organizations and States have embraced due to their attendant characteristics. In particular, mediation has been recognized and adopted as one of the effective means of resolving investment disputes without having recourse to litigation. This is because by its nature, the process of mediation is voluntary, private and confidential, and the proceeding is conducted without prejudice to parties' rights and liabilities (Stone, 1998, p. 19).

While the proceedings are generally informal, some institutions that have adopted mediation as a dispute resolution process have set down rules and procedures which govern the conduct of mediation between the disputing parties that have submitted to their jurisdiction. Examples include the Stockholm Chamber of Commerce (SCC) under which the SCC Mediation Institute was created and its proceedings are regulated by the SCC Institute Mediation Rules.

### **2.3 Good offices**

This process is similar to mediation and, in fact, it is sometimes employed to complement mediation efforts. However, while good offices involve a third party influencing the disputing parties to enter into negotiations, mediation process involves active participation of the third party in the settlement effort. In other words, mediation goes beyond influencing the parties to acting as an intermediary between the disputing parties to facilitate the resolution of their conflict.

Good offices, as one of the diplomatic ways of resolving disputes, is also recognized by some international institutions. For example, the World Trade Organisation (WTO) through its Dispute Settlement Understanding (DSU) allows disputing parties (if they so agree) to voluntarily undertake good offices, conciliation and mediation (Article 5, paragraph 1 of the DSU). Being an informal process, there is no provision as to form, time or procedure for it; any party may initiate or terminate the process at any time (Article 5, paragraph 3). In fact, the DSU further empowers the Director-General of the WTO, while acting in an *ex officio* capacity, to offer good offices, conciliation or mediation with the view to assisting WTO members to settle a dispute (Article 5, paragraph 6). The power to offer such services is discretionary, since the operational word in that provision is “may”. On one hand, it confirms the flexible, informal and voluntary nature of good offices as a process of resolving disputes. On the other hand, a strict adherence to this provision could be interpreted to mean it is only the Director-General that can offer good offices under WTO disputes, in compliance with the general rule that “express mention of a thing excludes the others” (*expressio unius est exclusio alterius*).

In any case, Article 5 of the DSU shows that good offices, conciliation or mediation is highly recommended for settlement of investment disputes. But where any of these fails, the complaining party may request the establishment of a panel (Article 5.4). A recent example is the famous Banana Dispute where complaining parties had on several occasions requested the Director-General of the WTO, Pascal Lamy to use his good offices to help broker an agreement and facilitate a solution to the Banana disputes. Though the Director General used his good offices, it took quite a long time, after series of meetings, before the dispute could be resolved

and a comprehensive agreement could be announced on Tuesday, 15<sup>th</sup> December 2009 (WTO: 2009 Press Release).

Even within the United Nations, the Secretary-General sometimes plays a vital role in dispute resolution and dispute avoidance through the exercise of his good offices. The exercise of the good offices has often been effective and accepted, as the Secretary-General is well respected by most world leaders, and his interventions are usually taken seriously. For example, former Secretary-General, Kofi Annan negotiated a dispute settlement between the US and Iraq over arms inspections in Iraq. He used his good office, as well as threat of sanction by UN if no agreement was reached, to force Saddam Hussein to allow continuation of UN inspections (reported at [www.colorado.edu/ungoodof.htm](http://www.colorado.edu/ungoodof.htm) accessed on 12-05-2016). In a nutshell, such exercise of good offices serves as a catalyst for reaching a less politically dangerous compromise by the disputing parties (Mackenzie, 2005, p. 37).

## 2.4 Consultation

Being a non-adversarial process, consultation is one of the diplomatic means of dispute settlement. Like it does recognize the use of good offices, the WTO also allows and mandates its members to explore consultations between themselves, as it prefers that disputing members settle their dispute in a manner that is consistent with the WTO Agreement (Article 3.7 DSU). Thus, the consultations between the parties are the first phase of the formal dispute settlement (Article 4).

Due to its potential success, consultation plays vital roles in resolving dispute among the disputing parties. These roles include the following:

- i. It gives the parties an opportunity to discuss the matter and to possibly arrive at a satisfactory solution without having recourse to litigation.
- ii. Parties at the consultations stage are able to clarify, and have better understanding of, the facts of the matter. This may result in the complaining party withdrawing its complaint if it becomes clear that the measure being complained of is actually not inconsistent with WTO Agreement, and that it (the complainant) has not been deprived of its accrued benefit. It may also force the respondent to embrace a diplomatic mode of settlement, hence avoiding the rigours of litigation. If however, the parties cannot come to terms, they will have to explore other available means of settlement.



In summary, consultation serves either to lay the foundation for a settlement or for further proceedings. It is after the consultations have failed to produce a satisfactory solution within 60 days that the complainant may request adjudication by a panel (Article 4.7 of DSU).

However, failure of consultations still does not prevent the parties from finding a mutually agreed solution at any later stage of the proceedings.

The effectiveness of consultation as one of the diplomatic means of resolving disputes, particularly investment disputes, has been acknowledged and recognized by the WTO and several multilateral and bilateral investment treaties and Agreements between States. For example, paragraph 5 of the preamble to the United States-Nigeria Bilateral Investment Treaty (US-Nigeria BIT) of 16<sup>th</sup> February, 2000 specifically states that it is desirable that trade and investment disputes between the Parties (i.e. the US and Nigeria) be resolved by mutual agreement. The Agreement goes further in Articles 7 and 9 to provide that upon request, the parties may settle their dispute through consultations. The other available means of settlement is negotiations.

Another example is the Australia – Chile Free Trade Agreement (FTA) which, inter alia, contains detailed provisions on investor – state dispute settlement. Specifically, section B of Chapter 10 of the FTA provides that where a dispute between a party and an investor is not resolved by negotiations and consultations, then the investor may refer the investment dispute to arbitration under the ICSID Convention, proceedings under the ICSID Additional Facilitations Rules, arbitration under the UNCITRAL Arbitration Rules or arbitration under any other arbitration rules. These are few (out of the many) instances that show that consultation is acknowledged generally as an effective method of dispute resolution.

## **2.5 Conciliation**

Generally, conciliation involves an impartial examination of a conflict by a third party a conciliator) which can be an individual or a conciliation commission set up or called upon by the disputing parties to assist them in resolving their disputes by recommending in its report the terms of a possible settlement. But, while the process involves the service of a third party, it does not mean that the parties would be bound by the outcome of the proceedings, since the terms are mere proposals. Therefore, by its nature conciliation combines the features of mediation and inquiry, and sometimes it may be likened to ‘institutionalized negotiation’ or mediation, where the institution structures and assists dialogue between the disputing parties (Mackenzie, p. 40).

Conciliation gained prominence during the period between the world wars, i.e. between 1920 and 1938, as conciliation commissions were set up and many treaties provided for them as a dispute resolution method. Despite its high recognition since that period, however, the conciliation process has not been widely used in resolving disputes (Shaw, p. 924).

Although, there were few instances where the process has been adopted, conciliation has its own unique role in the dispute resolution process. It is flexible and by its proposals and recommendations, the disputing parties can be encouraged to enter into negotiations which may ultimately lead to a final settlement of their dispute.

Furthermore, in spite of its rare use, conciliation has been given relatively elaborate considerations. This is evident in several laws and rules made pursuant to some international treaties and Conventions. For example, the 1928 General Act on the Pacific Settlement of International Disputes (revised in 1949) made elaborate provision for conciliation rules. Some of the other treaties that have recognized and provided for conciliation as a means of dispute settlement include: the 1948 American Treaty of Pacific Settlement; the 1964 Vienna Convention on the Law of Treaties; the 1982 Convention on the Law of the Sea (Shaw, p. 924), and the 1965 Convention on the Settlement of Investment Disputes Between State and the Nationals of Other States (which is a specific Convention on the settlement of investment disputes) among others. Nigeria is not an exception, as it has combined both arbitration and conciliation in one single law, known as the Arbitration and Conciliation Act (LFN, 2004). But the major challenge of these provisions is how frequently they are being used in an attempt to settle (the ever increasing rate of) disputes both locally and internationally.

## **2.6 Arbitration**

According to Ajogwu, 2009,) “*arbitration is the fair resolution of a dispute between two or more parties by a person or persons other than by a court of law*”( p.5).

The process of arbitration is adjudicative in nature and, therefore, as some have argued, may not be regarded as one of the ADR processes like some of the processes discussed earlier, i.e. negotiation, mediation, good offices, consultation and conciliation. Like litigation, it involves giving of evidence by the disputants, and the decision (award) delivered by the arbitrator(s) is legally binding on the parties and may be enforced like a court judgment.

However, unlike in litigation, the parties can appoint an arbitrator or arbitrators through an agreement between them, and such an arbitrator(s) is remunerated by the parties. The arbitrator(s) to be appointed by the parties usually possesses technical qualifications and

expertise in the subject matter in dispute. Also, the arbitration procedures are quite flexible and less formal than the court's proceedings.

There have been criticisms against arbitration as a practical process. One of such is that the arbitration procedures, instead of simplifying the conduct of a case, are often as long and as complicated as those encountered in the court. Also, the awards made by arbitrators do not reflect the believed advantages over the decision of the courts. This is probably due to the fact that the outcome of arbitration will produce a winner and a loser, just like litigation does.

Furthermore, arbitrators must be remunerated by the disputing parties, unlike in litigation where to a large extent (apart from filing and some other administrative charges) the provision of judges to adjudicate is free as they are always on ground and are paid salaries by the government or the body that is legally responsible for their remuneration.

Finally (though not exhaustive), the legal costs of arbitration (remuneration of arbitration and parties' counsel, among other expenses) may end up being as much as those incurred in litigation. Hence, in practice, arbitration has been faulted and described as disappointing (Stone, 1998, p. 112).

One of the striking and unique features of arbitration is that arbitration only becomes compulsory when the parties to a contract have an arbitration clause inserted in that contract, i.e. where the contract contains a clause that disputes that arise from the contract shall be resolved by arbitration. Such clauses are common in building and construction contracts and some other investment contracts. Otherwise, a dispute may be referred to arbitration with the consent of parties. This decision has been observed as the only voluntary element in the arbitration procedure. After that stage of referral, the parties are bound by the procedure and by the award given at the end of the arbitral proceedings (Stone, 1998, p. 112).

Nevertheless, the criticisms of the arbitration procedure have not eroded some other advantages that go with it over litigation. For example, the fact that privacy of the proceedings could be guaranteed has endeared some private persons and organizations to arbitration. This usually happens in the business community where business organizations who are parties to disputes would want to, as much as possible, avoid adverse publicity of such disputes because of the likely negative implications on their business, clients and overall investment. Hence, such organizations will readily go for arbitration and not litigation. However, where parties consent to it, the arbitration proceedings and outcome may be reported.

Having been used for several decades, it has been discovered that arbitration can be relied on as a dispute settlement procedure that has a high probability of success. For instance, the procedure was successfully used in the Alabama Claims arbitration of 1872 between two countries, which resulted in the United Kingdom having to pay compensation for the damage caused by a confederate warship built in the UK. This success story encouraged subsequent arbitrations toward the end of the nineteenth century (Shaw, p.952), and till date there has been an ever increasing awareness on the importance of the use of arbitration procedure in the settlement of disputes, especially in trade and investment disputes. In fact, efforts have been (and are still being) made to develop legal and institutional framework for the practice of arbitration both domestically and internationally.

### **3.0 The Concept of Online Dispute Resolution**

Having considered some of the ADR processes, it is expedient to note that the processes over the years can be improved on with the use of Information and Communication Technology. This brings to the fore, the need for the adoption of electronic means of practicing the ADR processes, hence the coinage, Online Dispute Resolution (ODR).

ODR is simply the use of electronic means in the dispute resolution processes. In other words, applications and computer networks are deployed for the settlement of disputes, and these include online and offline disputes (Van den Heuvel, p.8). In a nutshell, while ADR is said to move disputes away from a court to any place, ODR moves them to cyberspace (Idornigie, 2007). This results in online arbitration, online mediation, online negotiation etc.

It is important to note that the ICT platforms are numerous, and they also include mobile applications such as whatsapp, blackberry messages (bbm) and other applications/devices that can be used for communication. In fact, since dispute settlement involves communication, every means of communication can also be used to resolve disputes. And, with the advancement in technology, cross-border disputes can be resolved easily.

It should also be noted that e-commerce is the most prominent platform that allows for a maximum use of ODR (Albornoz and Martin, p. 12).

### **3.1 Legal Issues in ODR**

While the deployment of ICT in dispute resolution can be described as a welcome development, there are issues that it is being confronted and/or is likely be confronted with. These issues are

multi-faceted, but the concern of this paper will be limited to the legal issues that may arise in the course of practicing ODR.

### **3.1.2 Jurisdiction**

The issue of jurisdiction is prominent in arbitration as one of the ADR processes, and hence in online arbitration as an ODR process. This is because of the quasi-judicial nature of arbitration and the fact that it is governed by arbitration laws. Therefore, jurisdiction cannot be overlooked even in the cyberspace as far as arbitration is concerned. It manifests from the agreement of the parties (if there is any) to refer their dispute to arbitration. There may be a need to state in parties' agreement that any dispute that arises from a breach of their agreement shall be referred to online arbitration. This is because agreement is fundamental in arbitration, and when that is not stated expressly, either party may object to that mode of arbitration even ab initio. Also important is the seat of arbitration, as well as the choice of law to be applied in the arbitration proceedings (especially in international arbitration), among other jurisdictional issues.

Due to their highly flexible and convenient nature, online mediation and other ODR processes may not be confronted with the issue of jurisdiction in a strict sense. This might also not be unconnected with the fact that the other ADR (and indeed ODR) processes are usually not governed by strict rules like arbitration. However, this does not mean that these processes are totally free from challenges, as will be discussed infra.

### **3.1.3 Confidentiality and Privacy Issues**

One major feature and rule in mediation as an ADR process is the guarantee of disputants' confidentiality and privacy. While it is possible to have only oral communication in offline mediation, online mediation involves sending and receiving of data, usually by e-mail. There is therefore a high possibility of such mails being printed out and distributed by non-parties to the proceedings. Data can be hacked, and such an occurrence is not unusual on the internet. This results in the leakage of confidential matters, which in turn can frustrate the entire process and discourage prospective users of the process from embracing the online platform to resolve their disputes. In fact, an aggrieved disputant may resort to instituting a legal action against the online mediator or the mediation organization for breach of trust or breach of the confidentiality agreement. This will take parties back to litigation.



### 3.1.4 Compliance and Enforcement

Some of the advantages of ADR over litigation is the convenience, cost effectiveness and the largely informal nature and structure of the process, save for arbitration which is quasi-adjudicatory. Perhaps due to the flexibility of the ADR processes, agreements and compromises reached by the parties may not be enforceable as parties can sometimes renege and seek redress in court. And if that is the case with ADR, taking the processes to the cyberspace (ODR) may not make any difference because enforcement of agreements would still be a challenge.

As for the regular offline arbitration, there are laid down procedures for the recognition and enforcement of arbitral awards. Where an arbitral award is made, the court has a role to play, upon an application by a party relying on the award, in recognizing and enforcing such an award as a judgment or order of court. Conversely, the court may, upon request to the court by any of the parties to the agreement, refuse to recognize and enforce the award (Articles 35 and 36 UNCITRAL Model Law on International Commercial Arbitration, and Sections 31 and 32 Arbitration and Conciliation Act).

With the various stages of development in ICT knowledge and compliance in different jurisdictions, this poses a serious challenge to online arbitration. Where an arbitral award is given online, parties may have to resort to the court whether by e-filing (where such is practicable) or offline again for the purpose of recognition and enforcement. This is the same problem that the offline arbitration goes through, and there seems not to be a difference with the online arbitration. Therefore, since the arbitration appears not to be totally independent of the court, especially as regards recognition and enforcement of awards, the adjudicatory system would have to be upgraded to the status e-litigation in order to make online arbitration and the entire ODR system really worth the effort.

## 5.0 The Case with Nigeria

The law has had tremendous impact on the economic development of Nigeria (Ajogwu, 2013, p. 16). However, there is a lot of room for improvement especially in the light of modern realities in the area of dispute resolution. While there is a nascent but increasing awareness on the need to embrace ADR in Nigeria, it is important to note that this awareness is not sufficient. This is attested to by the ever increasing number of disputes that are filed in the regular courts every year. Matters that could be resolved amicably, if parties are really enlightened about the alternatives, take several years before they are finally disposed of by the courts.

Like it happens in many (if not all) other jurisdictions, the same attendant legal issues and challenges discussed above are bound to be repeated in Nigeria. In other words, many of the legal issues are not peculiar to any State. However, other issues that may be peculiar to Nigeria as a developing jurisdiction include the high rate of illiteracy in the use of ICT. This illiteracy cuts across every sector, including prospective disputants and prospective mediators or arbitrator(s). This hinders the possibility of using ICT for resolving disputes.

Another issue is epileptic electricity power supply which has adversely affected economic activities in the country, since virtually every sector depends on electricity. This in turn has the potential of discouraging electronic transactions and in the long run discouraging people and organizations from adopting electronic way of resolving their disputes.

Also, dysfunctional network has been a contributory challenge for electronic transactions. The case of network failures is rampant, and in fact almost always occurs. In fact, in the course of carrying out online transactions like on JUMIA, or even online banking, customers do experience such hiccups. This has not augured well for the cyber-society in Nigeria in that, if such disconnections can be regular with the day-to-day online activities, prospective parties to ODR cannot be expected to be interested the same system to help resolve their disputes.

Furthermore, the online and e-commerce environment in Nigeria is still at infancy, and there is a dearth of legal framework specifically regulating e-commerce. The known related law is a new legislation called Cybercrimes Act (2015). This is directed mainly at offences committed online. But the wider day-to-day online transactions and interactions have not been comprehensively taken care of legally. There ought to be legislative intervention in this regard for monitoring and regulating e-commerce, and wherein provisions can be made for reference of disputes to any of the dispute resolution processes. The UNCITRAL Model Law on E-Commerce cannot be effective in Nigeria until it becomes domesticated by the legislature.

## **6.0 Recommendation and Conclusion**

To guarantee confidentiality, it has been suggested that the use of encryption will be of immense benefit. This is an automated process of making data inaccessible to unauthorized persons. And when this is done, only the parties to the dispute and the mediator can read the messages exchanged between them, as well as the decision/final agreement (Van den Heuvel, pp. 14-15).

Epileptic power supply is endemic in Nigeria, and this has affected every sector of the country. The government has a lot to do in addressing this problem, in order for the seeming dying sectors to be revived.

As for the dysfunctional network service, the relevant regulatory bodies, in particular the Nigerian Communications Commission (NCC) needs to look into this matter and provide a lasting solution by putting in place the necessary infrastructure, effective monitoring and necessary sanctions in order to put all the service providers on their toes. This will guarantee effective service delivery and also repose confidence in the ICT sector.

It is also important that a well-structured and effective legal framework be put in place to properly regulate e-commerce and other electronic interactions. While there might not be direct legislation(s) on all the ADR (and ODR) processes due to their flexible nature, comprehensive legislations on electronic commerce and other related matters will provide a guide for the appropriate stakeholders in preparation for dispute resolution through the cyberspace.

In spite of the challenges that are associated with ODR, some of which have been discussed in this work, it is believed that with the availability of right infrastructure, proper enlightenment on ICT and its use, as well as effective and enforceable legislations, inter alia, ODR is practicable in Nigeria. Since the world is now a global village, no State that seeks development, including Nigeria, can run away from the reality of ICT. While the regular (offline) ADR processes may not be obliterated, there is no doubt that taking them further to the cyberspace will make dispute resolution more convenient for disputing parties in particular and for the Nation in general.

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## **An Empirical Study of Factors Influencing the Usage of E-Government Services in Nigeria**

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### **Abstract**

*This study examined factors influencing the usage of e-government services in Nigeria. A descriptive survey design was employed and a conceptual model was constructed using extended TAM theoretical model with the inclusions of perceived credibility and perceived compatibility and moderated variables (e.g. gender, age, income, educational level, trust in the internet and trust in government agencies). The items for each construct were adapted from the previous validated constructs in literatures with only modification to items for use behaviour adapted from Khalil and Nasrallah (2014) to suit the objectives of the study. An incidental random sampling technique was used to select three hundred respondents from the three local government areas in Oyo Township (i.e. Atiba, Oyo West and Oyo East). Seven hypotheses were formulated for the study and data collected were analysed using stepwise regression analysis at 0.05 level of significant. The results of the study showed that perceived usefulness, perceived credibility and computer self- efficacy had significant effects on the behavioural intention to use e-government services, and these effects increases for users' with high educational level(graduate or post graduate). However, the findings of this study showed that perceived ease of use and perceived compatibility have insignificant effect on the behavioural intention to use the e-government services and age and income does not moderated significant influence on the relationship between the independent variables and dependent variable. Also, behavioural intention has a significant effect on the use behaviour of e-government services and that effect increases as trust in the internet and trust in government agencies increases. Likewise, facilitating conditions has significant effect on the use behaviour of e-government services and that effect increases for men and users' with high educational level. Therefore, government should conduct widespread and enlightenment campaigns programmes for the potential users' to inform them about the real benefits available on e-government services. Also government should deploy an ease to use e-government services which will meet the needs of the diverse population of Nigeria in terms of education and income.*

**Keywords:** Behavioural Intention, Computer Self-Efficacy, e-government, Information Technology, Perceived Credibility



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## **Introduction**

There is global shift towards electronic government with the objectives to introduce radical changes to the traditional approach of public service delivery (Rabaa'i, 2015). Government services which were characterised as rigid bureaucratic can be replaced with e-government in order to make the government be more flexible, and more oriented to user satisfaction. E-government offers the public service to be accessed 24/7 whenever, and wherever the user is located. E-government also allows the public service to be more efficient since the services are not conducted by face-to-face communication (Rokhman, 2011).

The term e-governance is of recent origin and there is no commonly accepted definition (Olufemi, 2012). The Department of Economic and Social Affairs of the United Nations defines e-governance as utilizing the internet and the world-wide-web for delivering government information and services to citizens (United Nations, 2008). According to Olufemi (2012), e-governance refers to the use of information technologies (such as the Internet, the World Wide Web, and mobile computing) by government agencies that can transform their relationship with citizens, businesses, different areas of government, and other governments. European Commission (2003) define e-governance as the use of information and communication technologies in public administrations combined with organizational change and new skills in order to improve public services and democratic processes and strengthen support to public policies.

The aim of e-governance is to allow the public to initiate a request for a particular government service without going to a government office or having direct contact with a government employee. The service is delivered through government web sites (Brannen, 2001). E-governance comprises of an alignment of ICT infrastructures, institutional reform, business processes and service content towards provision of high-quality and value added services to the citizens and businesses (Olufemi, 2012).

Some forms of e-governance were already established in Nigeria such as the Nigerian Customs Assycuda Programme, the Computerization Resident Permit by the Nigerian Immigration Service, Computerization of Land and Certificate of Occupancy in the Federal Capital Territory Administration (FCTA). The payroll of some organizations are also being computerized (i.e. e-Payment), online checking of West Africa Examination Council (WAEC), National Examination Council (NECO) and Joint Admission and Matriculation Board (JAMB) result as well as National Youth Service Corps (NYSC) postings are part of real time and cost effective services which are part of e-government (Olufemi, 2012).

Previous studies indicate that demographic characteristics may have an imperative role in the adoption of e-government services. Income and education were positively related to the use of e-government services, while age was negatively related to adoption (Choudrie and Dwivedi, 2005; Dimitrova and Chen, 2006). In the UK, the majority of the adopters were between the

ages of 25 and 54 years and were educated to the undergraduate or postgraduate levels. Also, the higher the income the more probable it is for an individual to adopt e-government services (Choudrie and Dwivedi, 2005). In terms of gender, studies in Turkey and the UK showed that there were more males than females accessing e-government services. However, in the United States and Kuwait, studies revealed that a gender gap was not evident (Awadhi and Morris, 2008; Patel and Jacobson, 2008).

Recent studies on e-government adoption examined whether culture (both national and organizational culture) has a significant influence on an individual's behaviour in accepting or rejecting e-government services. Patel and Jacobson (2008) found that the gender gap in e-government adoption was as a result of difference of 'cultural tendency' particularly the communication styles of men and women. Kumar, Mukerji, Butt and Persuad (2007) proposed Power distance and uncertainty avoidance as the two cultural variables for determinant of e-government adoption. Power distance is defined as the individual's perception about the existence of distance between lower and upper castes in his/her society, while uncertainty avoidance refers to the tendency to be risk avert (Susanto, 2013). Kumar *et al* (2007) argued that citizens in countries with a higher power distance are more likely to adopt e-government than are citizens in countries with a lower power distance. Citizens in cultures that have higher uncertainty avoidance would be more dependent on trust for e-government adoption.

Another approach in understanding user acceptance of e-government services is to investigate what psychological forces exist behind individual's actions, thoughts, or behaviour towards deciding to use e-government. Recent studies have adopted various forms of TAM and UTAUT in order to investigate e-government adoption in different perspectives. Studies which adopted the TAM and the UTAUT models have verified that perceived usefulness (or performance expectancy) and perceived ease of use (or effort expectancy) are major influences on the intention to use or to not use an e-government service (Al-Adawi, Yousafzai and Pallister, 2005; Cater and Belanger, 2005). The study of Gilbert, Balestrini and Littleboy (2004) shows that the higher an individual's perceived usefulness of an e-government service and the easier the service is perceived to be by the person the more likely he/she uses the service.

Other perceptions that play important roles in user acceptance of e-government services are trust and perceived risk (Mark, Margot & Jan, 2007). Study of Dimitrova and Chen (2006) presume that the perceived risk tolerance of an individual may determine his/her decision to use or to not use an e-government service, particularly for transactional use. Perceived risk, however, could be reduced by the increase of trust in the technology (Internet and the infrastructure) and the service providers (including the government agency, the Internet service provider, and the financial institution (Mark *et al*, 2007; Cater & Belanger, 2005). A high level of trust in the service, the technology, and the service provider may lead to a low perceived risk in using the service and increase intention to use the e-government service (Al-Adawi *et al*, 2005; Gilbert *et al*, 2004; Lee *et al*, 2005).

Therefore, this study was carried out to examine the factors influencing usage of e-government services in Nigeria. A conceptual model was constructed using extended TAM theoretical model with the inclusion of perceived credibility and perceived compatibility and moderated variables (e.g. gender, age, income, educational level, trust in the internet and trust in government agencies). All the constructs in the proposed model and the relations between them are shown in the figure 1.

## **Review of Literature**

### **E-government Background:**

E-government is a new wave in the information revolution. Many governments around the world follow this phenomenon hoping to reduce costs, improve services delivery for citizens and to increase effectiveness and efficiency in the public sector (Alsheri, Drew and Alghamdi, 2013). E-government represents an essential change in the whole public sector structure, values, culture and the ways of conducting business. In fact, there are many definitions for the term e-Government and differences reflect the priorities in the government strategies. Moon and Norris (2005) provides a simple definition that e-government is perceived as "means of delivering government information and service" (p.43). Isaac (2007) defined electronic government as government's use of technology, particularly Web-based Internet applications, to enhance the access to and delivery of government information and service to citizens, business partners, employees, other agencies, and government entities.

Similarly, Fang (2002) defined e-government as a way for governments to use the most innovative information and communication technologies, particularly Web-based Internet applications, to provide citizens and businesses with more convenient access to government information and services, to improve the quality of the services and to provide greater opportunities to participate in democratic institutions and processes. Moreover, Carter and Belanger (2005) defined e-government services as the use of ICT to enable and improve the efficiency of the government services that are provided to citizens, employees, businesses, and agencies. According to Carter and Belanger (2005), e-government services increase the convenience and accessibility of government services and information to citizens. Nowadays, government agencies around the world are increasingly making their services available online. E-government services become especially important given its potential to reduce costs and improve service compared with traditional modes of government service delivery (Carter and Belanger, 2005).

Different categories of forms or patterns of interactions with E-governance can be noted in the literature. These forms or models of E-governance can be classified into four (4) broad categories, namely:

- (a) Government to Citizens (G2C);
- (b) Government to Government (G2G);
- (c) Government to Employees (G2E); and
- (d) Government to Business (G2B) (Nkwe, 2012; Yadau and Singh, 2012).

**Government to Citizens (G2C):** This type of e-governance is geared towards creating links and communication channels between the government and the citizens. G2C aims at establishing an efficient, free flow of interaction between the government and the citizens which is the whole essence of adopting e-governance (Nkwe, 2012). This model of e-governance, which creates a bond between government and its citizens include the following services:

- Payment of utility bills online;
- Making online registrations and applications;
- Filing of complaints via government websites that addresses grievances and infringements;
- Sourcing for any government information that educates and enlightens the public (Yadav and Singh 2012).

Thus, the G2C model is supported by concepts like e-democracy, e-voting, e-transport, e-Medicare, and e-citizen which are geared towards establishing “integrated service centres” which are visible outlets for delivering all forms of government ICT services (Sachdeva, 2002).

**Government to Government (G2G):** This model aims at providing internet services among government organizations at various levels of inter-governmental relations (Gant, 2008). The G2G model is said to be the fulcrum of e-governance. This is because government agencies across the federal, state and local levels are expected to upgrade and modernize their internal mediums, and network and processes to a higher internet-compliant standard before they can use them to interact with the citizens and businesses of the outside world (Nkwe, 2012). The G2G model of e-governance ensures that governments and public organizations adopt the latest ICTs in networking and interacting with one another. It is, therefore, an internal type of e-governance that centre on updating the inter-government agencies at all levels.

Based on the aforementioned literature, it can be asserted that G2G dimension of e-Government has the following objectives:

- Enable all levels of government to work together easily in order to provide better services to the citizens and businesses.
- Create joined and collaborative government by reducing the scattered nature of departments and agencies working alone.
- Transform the reactive nature of community service to proactive.

**Government to Employees (G2E):** This model of e-governance seeks to improve on the transparency, efficiency and effectiveness of the interactions between the government and its employees through the application of ICTs. Just like the G2G, the G2C is an internal innovation on the use of the internet and mobile communications with a view to improving internal operations and cost-effectiveness (Gant, 2008).

Yadav and Singh (2012) outlined the following as the type of information shared under the G2E model:

- All kind of data submission/attendance record and employee record;
- Documentations of complaints and dissatisfaction;
- Rules, regulations and information about work;
- Payment timetable and work records;
- Working forms.

**Government to Business (G2B):** This model employs the procurement and/or delivery of goods and services between the government and the private sector via the use of ICT (Nkwe, 2012). The G2B type of e-governance is the linkage between the public and private sectors through the medium of the internet, the web and mobile communications technology. Because of the large volume of goods and services that are delivered between the government and the private sector, the government puts in place internet based processes of procurement, also known as e-procurement (Gant, 2008).

Based on the aforementioned literature, it can be asserted that G2B dimension of e-Government has the following objectives:

- Facilitate business development by providing access to information at one place and reduce the businesses burden.
- Remove the extra work of providing same data or information to various government agencies.
- Restructure the reporting needs by creating more efficient ways for businesses to interact with governments.

**Technology Acceptance Model (TAM):**

TAM was developed by Davis (1986) to theorize the usage behaviour of computer technology. The TAM was adopted from another popular theory called theory of reasoned action (TRA) from field of social psychology which explains a person's behaviour through their intentions. Intention in turn is determined by two constructs: individual attitudes toward the behaviour and social norms or the belief that specific individuals or a specific group would approve or disprove of the behaviour. While TRA was theorized to explain general human behaviour,

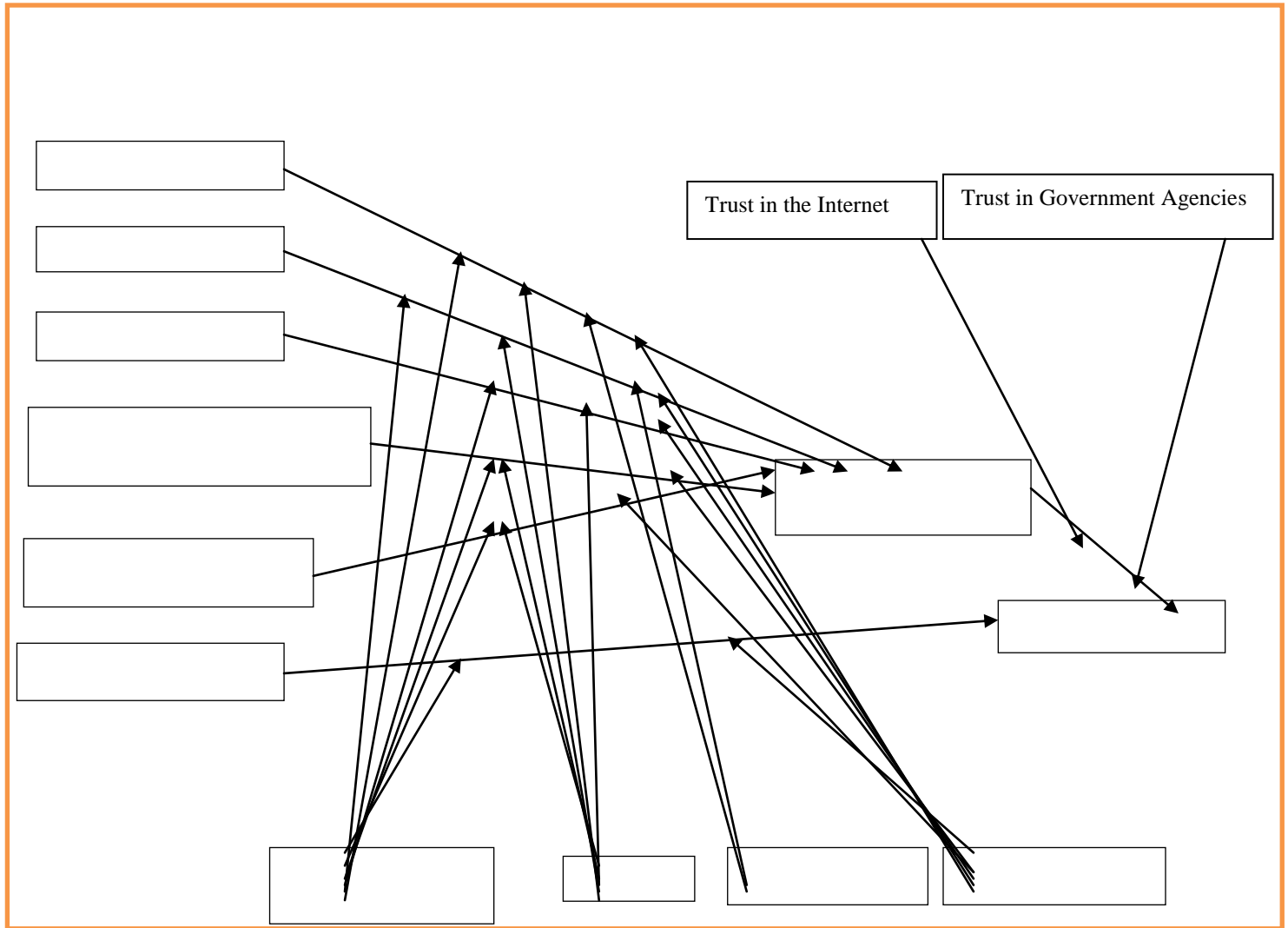
TAM specifically explained the determinants of computer acceptance that are general and capable of explaining user behaviour across a broad range of end-user computing technologies



and the user population (Davis, Bagozzi and Warshaw, 1989). TAM breaks down the TRA's attitude construct into two constructs: perceived usefulness (PU) and perceived ease of use (EU) to explain computer usage behaviour. In fact, TAM proposes specifically to explain the determinants of information technology end user's behaviour towards information technology (Saade, Nebebe and Tan, 2007). In TAM, Davis (1989) proposes that the influence of external variables on intention is mediated by perceived ease of use (PEU) and perceived usefulness (PU). TAM also suggests that intention is directly related to actual usage behaviour (Davis et al., 1989).

While TAM has received extensive support through validations, applications and replications for its power to predict use of information system (IS) and is considered to be the most robust and influential model explaining IS adoption behaviour (Davis, 1989; Davis et al., 1989; Lu, Liu, Yu and Yao, 2003), it has been found that TAM excludes some important sources of variance and does not consider challenges such as time or money constraints as factors that would prevent an individual from using an information system (Al-Shafi and Weerakkody, 2009). Davis et al., (1989) compared the TAM with TRA in their study. The confluence of TAM and TRA led to a structure based on only three theoretical constructs: behaviour intention (BI), perceived usefulness (PU) and perceived ease of use (PEOU). Social norms (SN) were found to be weak as an important determinant of behavioural intention. While TRA and TPB theorised social norms as an important determinant of behavioural intention, TAM does not include the social norms as such, influence of social and control factors on behaviour. This is significant, as the model will miss a core and critical component of technology acceptance, as these factors are found to have a significant influence on IT usage behaviour (Mathieson, 1991; Taylor and Todd, 1995) and indeed are important determinants of behaviour in the TPB (Ajzen, 1991). Researchers have found that original TAM variables may not adequately capture key beliefs that influence consumer attitudes toward e-commerce, for example, (Pavlou, 2003). As a result, TAM has been revised in many studies to fit a particular context of technology being investigated. One important and well-received revision of TAM has been the inclusion of social influence processes in predicting the usage behaviour of a new technology by its users (Venkatesh and Davis, 2000). Venkatesh and Davis (2000) extended the original TAM model to explain perceived usefulness and usage intention in terms of social influence (e.g., subjective norms, voluntariness) and cognitive instrumental processes (e.g., job relevance, output quality). The extended model is referred to as TAM2.





**Figure 1. The Research Model**

**Research Objectives**

This research aims to examine the factors influencing usage of e-government services in Nigeria. Specifically, the objectives of this research are:

- (i) To examine the relationship between perceived usefulness, perceived ease of use, perceived credibility, perceived compatibility, computer self-efficacy and behavioural intention to use e-government under the moderators' influence of gender, age, income and educational level.

- (ii) To examine the relationship between behavioural intention to use, facilitating conditions and use behaviour under the moderators' influence of gender, age, income and educational level.

### Research Hypotheses

The following hypothesis was formulated and tested for this study:

- (i) **H1:** There would be a significant positive relationship between perceived usefulness and behavioural intentions to use e-government services, and this relationship would be moderated by gender, age, income and educational level.
- (ii) **H2:** There would be a significant positive relationship between perceived ease of use and behavioural intentions to use e-government services, and this relationship would be moderated by gender, age, income and educational level.
- (iii) **H3:** There would be a significant positive relationship between perceived credibility and behavioural intentions to use e-government services, and this relationship would be moderated by gender, age and educational level.
- (iv) **H4:** There would be a significant positive relationship between perceived compatibility and behavioural intentions to use e-government services, and this relationship would be moderated by gender, age and educational level.
- (v) **H5:** There would be a significant positive relationship between computer self-efficacy and Behavioural intentions to use e-government services, and this relationship would be moderated by gender, age and educational level.
- (vi) **H6:** There would be a significant positive relationship between behavioural intention and use behaviour of e-government services, and this relationship would be moderated by trust in the internet and trust in government agencies.
- (vii) **H7:** There would be a significant positive relationship between facilitating conditions and use behaviour of e-government services, and this relationship would be

moderated by gender and educational level.

## Research Methodology

### Research Design and Sampling:

The descriptive research design of the survey type was employed in the study. The population of the study consists of peoples living within the three local governments' area in Oyo Township (i.e. Atiba Local Government, Oyo West Local Government and Oyo East Local Government). An incidental random sampling technique was used to select three hundred (300) respondents from the population. The respondents are categorised as students, government/private workers, traders, and self-employer.

### Measurements:

Table 1 presents the research constructs, their operational definitions and measurements. The measures of perceived usefulness, perceived ease to use, perceived credibility, perceived compatibility, computer self-efficacy, facilitating condition, trust in the internet and trust in government agencies used a 5-point Likert scale (ranging from 1=strongly disagree to 5=strongly agree). The measure of behavioural intention and use behaviour use a 5-point Likert scale (ranging from 1=never used to 5=used all the time).

The selected items in the instrument were carefully selected through the review of the relevant literature without modification. It was only the items on use behaviour adapted from Khalil and Nasrallah (2014) that was modified to suit the content of the study. The instrument includes two parts. The first part is designed to collect demographic data (e.g. gender, age, education and income). The last part consists of the items that are used to measure the variables in the research model.

**Table 1: The Research Constructs and Measurement**

Construct	Operational Definition	Measurement
Perceived Usefulness	The degree to which a person believes that using a particular technology will enhance his performance.	PU1 Using e-government services would enable me to accomplish my tasks more quickly. PU2 Using e-government services would make it easier for me to carry out my tasks. PU3 I would find e-government services useful. PU4 Overall, I would find using e-government services to be advantageous. Adapted from Davis (1989)
Perceived Ease of Use	The degree to which person believes that using a particular system would be free of effort.	PEU1 Using the e-government services is easy for me. PEU2 It is easy for me to become skillful at the use of the e-government services. PEU3 Overall, I find the use of e-government services Easy. Adapted from Davis (1989)

Perceived Credibility	Perceived credibility indicates the perception of protection of user's transaction details and personal data against illegal entrance.	PC1 my PC2 PC3 PC4	Using e-government services would not divulge my privacy. Information and News on e-government sites are more credible. I would find e-government services reliable in conducting my transactions. I would find e-government services kept my information confidential. Adapted from Yang (2007)
Perceived Compatibility	The degree to which e-government usage is perceived seamless natural and compatible with needs	PCM1 PCM2 PCM3 PCM4	I think using the Web would fit well with the way that I like to gather information from state government agencies. I think using the Web would fit well with the way that I like to interact with state government agencies. Using the Web to interact with state government agencies would fit into my lifestyle. Using the Web to interact with state government agencies would be incompatible with how I like to do things. Adapted from Rokhman (2011)
Computer Self-Efficacy	Individuals' judgment of their capabilities to use computers in diverse situations.	CSE1 CSE2 CSE3 CSE4	I am confident of using e-government services if I have only the online instructions for reference. I am confident of using e-government services even if there is no one around to show me how to do it. I am confident of using e-government services even if I have never used such a system before. I believe I have the ability to install and configure the software to access e-government services. Adapted from Lee et al (2003) cited in Rabaa'I, 2015
Facilitating Conditions	An individual's perception of the resources and support available to use e-government services	FC1 FC2 FC3 FC4 FC5	I have the resources necessary to use the system. I have the knowledge necessary to use the system. Given the resources, opportunities and knowledge it takes to use the system, it would be easy for me to use the system. I think that using the system fits well with the way I like to work. Using the system fits into my work style. Adapted from Venkatesh et al. (2003).
Trust in the Internet	Reliability and security of the media which e-	TI1	The Internet has enough safeguards to make me feel comfortable in conducting transactions using





	government services are being provided the internet	<p>TI2 e-government. I feel assured that legal and technological structures adequately protect me from problems on the Internet while using e-government transactions.</p> <p>TI3 Generally, I feel that the Internet is now a robust and safe environment in which to conduct on-line transactions with the government.</p> <p>TI4 I think I can trust government agencies in delivering my transactions using e-government. Adapted from Abu Nadi (2012).</p>
Trust in the Government Agencies	Trust in the state government agency providing the service	<p>TG1 Government agencies can be trusted to carry out on-line transactions faithfully.</p> <p>TG2 In my opinion, government agencies are trustworthy in their ability to deliver services using e-government transactions.</p> <p>TG3 I trust government agencies to keep my best interest in mind while delivering on-line services using e-government transactions. Adapted from Abu Nadi (2012)</p>
Behavioural Intention	The extent to which individuals would like to use e-government services	<p>IU1 I would use e-government services for my different governmental transactions.</p> <p>IU2 Using e-government services for handling my governmental related transactions is something I would do.</p> <p>IU3 I would see myself using e-government services for handling my governmental related transactions. Adapted from Cheng <i>et al</i> (2006) ; Jahangir and Begum (2008).</p>
Use Behaviour	The breadth and extent of an individual's use of e-government services	<p>BU1 I have used the e-government services to inquire about my result in JAMB, WAEC, NECO, Post UTME entrance Examination and NABTE.</p> <p>BU2 I have used the e-government services to apply for admission or seeking for government/private appointments.</p> <p>BU3 I have used the e-government services to inquire about my driving license and custom duties documents.</p> <p>BU4 I have used the e-government services to carry out banking transactions. Adapted from Khalil and Nasrallah (2014).</p>



**Results**

**Table 2: Demographic data of the respondents**

Demographic	Frequency	Percentage
<b>Category of the Respondent</b>		
Students	120	40.0
Government Workers	80	26.7
Private Workers	40	13.3
Traders	30	10.0
Self-Employed	30	10.0
<b>Gender</b>		
Male	190	63.3
Female	110	36.7
<b>Age</b>		
Less than 18 years	28	9.3
18-25 years old	42	14.0
26-30 years old	57	19.0
31-40 years old	63	21.0
Above 40 years old	110	36.7
<b>Highest Qualification</b>		
SSCE	58	19.3
Trade Craft Certificate	42	14.0
NCE/OND	87	29.0
B.Sc/ B.Ed/B.A/HND	41	13.7
M.Sc/M.Ed/M.A	43	14.3
P.hD	3	1.0
Others	26	8.7
<b>Monthly Income</b>		
Less than ₦5, 000	36	12.0
N5, 000-N20, 000	78	26.0
N20, 000-N50, 000	98	32.7
Above N50, 000	88	29.3

Table 2 showed the demographic information of the participants. The table indicates that 40.0% were students, 26.7% were government workers, 13.3% were private workers while 10.0% were either trader or self-employed. In terms of gender, 63.3% were male and 36.7% were female; this shows that male was more represented than female participants. With regards to age of the participants, the table shows that older participants were more represented than the younger ones (i.e. 21.0% and 36.7% is more than 9.3%, 14.0% and 19.0%). Also, in terms of highest



qualification of the respondents, 19.3% have SSCE, 14.0% have trade craft certificate, 29.0% have either NCE or OND, 13.7% have either bachelor degree or HND, 14.3% have master degree, and 1.0% have doctoral degree while 8.7% are other certificate that was not listed. Finally, 12.0% of the respondents have monthly income of ₦5, 000, 26.0% have monthly income between the range of ₦5, 000 and ₦20, 000, 32.7% have monthly income between the range of ₦20, 000 and ₦50, 000 while 29.3% have monthly income above ₦50 , 000.

**Table 3: Reliability Results**

Construct	Number of Items	Cronbach Alpha
Use Behaviour	4	0.79

Table 3 shows the Cronbach Alpha of the modified scale used to obtained data and the result indicated acceptable reliability coefficient that is above threshold of 0.70 (Nunnally,1978 ).

The first stepwise regression model (Table 4) is used to test the first two hypotheses (H1 and H2). The results indicate that the only significant predictors remained in the model are perceived usefulness and the moderator educational level. The model explains approximately 30% of the variance in behavioural intention (adjusted  $R^2=.296$ ).

Perceived ease of use did not influence the behavioural intention, a result that suggests the rejection of H2. However, perceived usefulness ( $\beta=.547$ ,  $p=.000$ ) was found to influence behavioural intention. In addition, among the four moderating variables, only educational level was found to have a significant effect on the relationship that perceived usefulness and perceived ease of use had with behavioural intention ( $\beta=.239$ ,  $p=.000$ ). These results provide a partial support for the acceptance of H1. Therefore, perceived usefulness have a significant positive effect on the behavioural intention use of e-government services and that effect is stronger for users' having high education level (graduate or post-graduate).

**Table 4: Regression Model for Perceived Usefulness, Perceived Ease of Use, and the Moderating Variables (Gender, Age, Income and Educational Level) against Behavioural Intention**

Model	B	Std. Error	Beta	t	Sig. value
1 (Constant)	8.160	.731		11.166	.000
Perceived Usefulness	.660	.065	.547	10.125	.000
Educational level	.544	.125	.239	4.351	.000

R       $R^2$       Adjusted R Square      Std. Error of the Estimate

.547 .299 .296 3.371

The second stepwise regression model (Table 5) was constructed in order to test hypotheses H3, H4 and H5. Behavioural Intention was regressed on perceived credibility, perceived compatibility and computer self-efficacy along with gender, age and educational level as moderators. The consequent regression model explains approximately 14% of the variance in the behavioural intention use of e-government services (adjusted  $R^2=.142$ ).

The two significant variables in the regression model are Perceived credibility ( $\beta=.420$ ,  $p=.000$ ) and computer self-efficacy ( $\beta=.167$ ,  $p=.004$ ). Educational level is only moderator variable that have a significant effect on the relationship that perceived credibility, perceived compatibility and computer self-efficacy had with behavioural intention ( $\beta=.287$ ,  $p=.000$ ). These results provide partial support for hypotheses H3 and H5 but reject hypothesis H4. Therefore, perceived credibility and computer self-efficacy have a significant positive effect on the behavioural intention use of e-government services and that effect is stronger for users' having high education level (graduate or post-graduate).

**Table 5: Regression Model for Perceived Credibility, Perceived Compatibility, Computer Self-Efficacy, and the Moderating Variables (Gender, Age and Educational Level) against Behavioural Intention**

Model	B	Std. Error	Beta	t	Sig. value
1 (Constant)	8.793	1.744		5.042	.000
Perceived Credibility	.919	.127	.420	3.235	.000
Computer Self-Efficacy	.424	.145	.167	2.914	.004
Educational Level	.653	.130	.287	3.015	.000
	R	$R^2$	Adjusted R Square	Std. Error of the Estimate	
	.388	.151	.142	3.701	

The third stepwise regression model (Table 6) was constructed in order to test hypothesis H6. Actual use was regressed on behavioural intention along with trust in the internet and trust in government agencies as moderators. The consequent regression model explains approximately 22% of the variance in the actual use of e-government services (adjusted  $R^2=.219$ ).

Behavioural intention have a significant positive effect on the actual use of e-government services ( $\beta=.188$ ,  $p=.000$ ). Both trust in the internet ( $\beta=.322$ ,  $p=.000$ ) and trust in government agencies ( $\beta=.274$ ,  $p=.000$ ) are the moderators variable that have a significant effect on the relationship that behavioural intention had with actual use. These results provide full support for hypothesis H8. Therefore, behavioural intention has a significant positive effect on the actual use

of e-government services and that effect is stronger as the trust in the internet and government agencies increases.

**Table 6: Regression Model for Behavioural Intention and the Moderating Variables (Trust in the Internet and Trust in government agencies) against Actual use**

Model	B	Std. Error	Beta	t	Sig. value
1 (Constant)	9.248	.708		13.069	.000
Behavioural Intention	.060	.017	.188	3.570	.000
Trust in the Internet	.391	.065	.322	6.012	.000
Trust in the government agencies	.215	.043	.274	5.004	.000

R	R <sup>2</sup>	Adjusted R Square	Std. Error of the Estimate
.477	.227	.219	1.116

The fourth stepwise regression model (Table 7) was constructed in order to test hypothesis H9. Actual use was regressed on facilitating conditions along with gender and educational level as moderators. The consequent regression model explains approximately 36% of the variance in the actual use of e-government services (adjusted R<sup>2</sup>=.355).

Facilitating conditions have a significant positive effect on the actual use of e-government services ( $\beta=.106$ ,  $p=.026$ ). Both gender ( $\beta=.288$ ,  $p=.000$ ) and educational level ( $\beta=.567$ ,  $p=.000$ ) are the moderators variable that have a significant effect on the relationship that facilitating conditions had with actual use. These results provide full support for hypothesis H9. Therefore, facilitating conditions has a significant positive effect on the actual use of e-government services and that effect is stronger for men and users' having high education level (graduate or post-graduate).

**Table 7: Regression Model for Facilitating conditions and the Moderating Variables (Gender and Educational Level) against Actual use**

Model	B	Std. Error	Beta	t	Sig. value
1 (Constant)	7.218	.522		13.826	.000
Facilitating Conditions	.109	.049	.106	2.243	.026
Gender	.365	.061	.288	5.973	.000
Educational level	.407	.038	.567	11.800	.000

R	R <sup>2</sup>	Adjusted R Square	Std. Error of the Estimate



.601

.362

.355

1.014

### **Discussion of the Findings**

Seven hypotheses were formulated and tested. The research findings reject H2 and H4 but partially support H1, H3 and H5 and fully support H6 and H7. It was found that perceived usefulness, perceived credibility and computer self-efficacy had significant effects on the behavioural intention to use e-government services, and these effects increases for users' having high education level (graduate or post-graduate). Also, behavioural intention has a significant effect on the use behaviour of e-government services and that effect increases as trust in the internet and trust in government agencies increases. Likewise, facilitating conditions has significant effect on the use behaviour of e-government services and that effect increases for men and users' having high education level (graduate or post-graduate).

However, the findings of this study showed that perceived ease of use and perceived compatibility have insignificant effect on the behavioural intention to use the e-government services and gender, age and income does not moderated significant influence on the relationship between the independent variables and dependent variable. But this finding is inconsistent with the findings of the previous studies (e.g. Rabaa'i, 2015; Venkatesh, 2000; Venkatesh and Morris, 2000). The explanation for this finding could be as a result of the belief of Nigerian people that transacting with the government agencies and systems is generally time-consuming, inconvenient and tedious. Therefore, the belief that transacting with e-government services would positively affect their perceived ease of use and perceived compatibility was not strong enough to reinforce their behaviour intention to use the system. In addition, only educational level was found to be positively moderate the relationship between the perceived usefulness, perceived credibility, computer self-efficacy and behavioural intention to use e-government services. This finding, however, is inconsistent with the findings of Choudrie and Dwivedi (2005) and Dimitrova and Chen (2006) as gender, age and income was found to have positive effect on the relationship between perceived usefulness, perceived credibility, computer self-efficacy and behavioural intention to use e-government services.

Behavioural use intention was also found to be significant determinants of the actual use of e-government services. The actual use of the system increase with higher level of behavioural use intention and that effect is moderated by the extent of trust in both the internet and government agencies. The higher the potential users' having trust in the internet and government agencies the higher the influence that behavioural use intention will have on the actual use of the e-government services.



Lastly, facilitating conditions was found to have a significant effect on the actual use of e-government services. Availability of adequate resources and knowledge required for e-government services in conjunction with access to the needed technical support to transact online would increase the actual use of e-government services. This finding corroborates the findings of Venkatesh et al. (2003) and ALAWadhi and Morris (2009).

In addition, gender and educational level was found to influence the relationship between facilitating conditions and the actual use of e-government services and that effect is stronger for men and users' having high education level (graduate or post-graduate). This finding may be attributed to the fact that Nigeria has masculine practices like Kuwait. Compared to men, women in Nigerian culture generally play a lower role in community decision-making, present a lower percentage of the labour force, have lower literacy rates, and have dissimilar education (Allanana, 2013; Hafkin, 2002; Heeks, 1999). Although there is an improvement in gender digital divide in Nigeria, but access to the technical and knowledge resources needed to adopt IT application such as e-government services is still very low for women .

### **Implication of the Study**

The findings of this study provides empirical evidence on the influence of a number of determinants (e.g. perceived usefulness, perceived credibility, computer self-efficacy, and facilitating conditions) and moderating variables (e.g. gender, educational level, trust in the internet and trust in government services in developing country).

This study extends the growing body of knowledge on citizens' usage of e-government services in developing countries and the findings of this research give support to the validity of the TAM model. Some hypothesized in TAM model showed strong predictor of IT use intention but was found in this research to be insignificant in predicting the behavioural intention to use e-government in Nigeria. Therefore, future research could be carried out to test TAM in various contexts, including different cultures, users with diverse characteristics, and specific types of e-government service.

Also, the findings of this research could serve as a foundation for decision making and policy formulation aiming at enhance the adoption and utilization of e-government services in Nigeria. Therefore, Nigeria government should emphasis on perceived usefulness, perceived credibility, computer self-efficacy, facilitating conditions in order to stimulate the behavioural intention of the citizens' to actual use the e-government services. Government should focus on how to enhance the usefulness and credibility of the e-government system in order to promote the usage of the system by the potential users. However, users encountered several problems when using the e-government services such as delays, downtimes, space constraints, and epileptic power supply and system failure. The government should improve the quality of the system and ensure that it is problem free and capable of providing users with desirable features. Improving the system functionalities and providing citizens with information on privacy and security policies

should increase their trust in the system. Government should utilize the media (e.g. TV and radio campaigns, street posters, SMS, e.t.c) to promote and emphasize the benefits of using e-government (Khalil and Nasrallah, 2014). The government should also focus on how to provide the needed resources and support, especially for women, to facilitate the use of e-government services. Providing an effective online support e.g. e-mail, online chat rooms, 24/7 hotline) to give the citizens the confidence and trust they need in order to use the system.

### **Conclusion**

This research employed a revised TAM model to investigate the influence that perceived usefulness, perceived ease of use, perceived credibility, perceived compatibility, computer self-efficacy, and facilitating conditions as well as moderating variables of gender, age, income, educational level, trust in the internet and trust in the government agencies that could possibly have on use intention and the actual use of the e-government services in Nigeria. Seven research hypotheses were formulated and tested.

Perceived usefulness, perceived credibility and computer self-efficacy, and educational level were found to be significant predictors of the behavioural intention to use e-government services. In addition, facilitating condition, use intention, gender, educational level, trust in the internet, and trust in government agencies are significant predictors of the actual use of e-government services. These findings contribute to the growing empirical evidence on e-government adoption and its determinants in the developing countries (Khalil and Nasrallah, 2014).

The empirical evidence of the research should guide the Nigeria government's efforts to enhance the adoption of e-government service. Effort should be made to enhance functionalities and features of e-government services, make it conveniently, accessible, promote its benefits and provide citizens with effective online support.

### **Recommendations**

Based on the findings of this study, the following suggestions are hereby recommended:

- (i) Government should conduct widespread and enlightenment campaigns programmes for the potential users' in order to inform them about the real benefits available on e-government services.
- (ii) Deployment of ease to use e-government services that will meet the needs of the diverse population of Nigeria in terms of education and income.
- (iii) Provision of adequate resources such as computers and Internet access and infrastructure at the community level in public places, especially in rural areas where less advantaged people are found.
- (iv) E-government services must be efficient, available and should meet the specific need of the users.

- (v) Policy makers must improve the strategic e-government planning and development based on their ground knowledge of factors influencing intention to use e-government services.

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**INTERROGATING THE APPLICATION OF E-GOVERNANCE FOR  
SERVICE DELIVERY IN THE LOCAL GOVERNMENT OF NIGERIA: A  
STUDY OF OJO AND ALIMOSHO LOCAL GOVERNMENT AREAS,  
LAGOS STATE**

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**Abstract**

*This study examined the application of e-governance for service delivery in the Local government of Nigeria with particular reference to Ojo and Alimosho Local government areas of Lagos state. The survey research method was employed for the study. Questionnaire and Interviews were used as major instruments for data collection alongside other secondary sources. The simple Random Sampling technique was used to derive a sample of 100 respondents from a population size of 748 workers from Ojo and Alimosho Local Government Areas. Simple percentages were used for the demographic data analysis, as well as to test the hypotheses. The findings revealed that the application of E-governance is still a far cry in the local governments. Generally, the concept is novel among the workers as it is generally construed to mean electronic payment of salaries and lodgments into the Banks by the citizens. Beyond this, it was revealed that such facilities like web sites, constant electricity supply, enabling environments to boost tele-density, internet diffusion, adult computer literacy, cyber cafes, computer etc were not adequately available as expressed by the respondents. Based on these findings, the study recommended that government should embark on serious public enlightenment to buttress the need for E-governance. Similarly, the necessary facilities should be put in place. When these facilities are put in place, they become the bedrock on which e-governance can be successfully implemented to bring about efficient and effective service delivery in the Local governments. The Federal government should show more commitment to the initiation and application of E-governance by all tiers of government in Nigeria for better service delivery.*

**Key words:** E-governance, public enlightenment, service delivery, application and Interrogation.

**INTRODUCTION**

Responding to the growing global influence of ICT in governance, the Nigerian government, in 2001, adopted the Nigerian National Information Technology (IT) policy. Furthermore, in 2007,

the National Information Technology Development Act was enacted by the National Assembly. The application of ICT at every facet of human's existence, the world over has reached extraordinary heights, stimulating fundamental changes and development in the way people and organizations relate, share information and conduct transactions (Nchuchuwe & Ojo, 2015).

Edewor, Imhonopi & Urim (2014) pointed out that "Information and Communication Technology (ICT) has become, within a very short time, one of the basic building blocks of modern society". According to them, ICTs have successfully changed the social, economic and political spaces globally". Thus, ICT has been a massive instrument for sustainable development by changing the way people, and organizations interact with one another.

With the prevalence of ICT in society, there is practically no sector or segment of the society where its influence has not reached (Nchuchuwe & Ojo, 2015). ICT has become a significant part of life that makes it practically impossible to fit into the modern world without its applicability be it in the private or public sphere of life. Large volumes of transactions are completed with utmost efficiency through the use of ICT, and no organization, large or small, public or private, can afford to lag behind in upgrading its mode of doing business and joining the bandwagon of incorporating ICT in its operations.

Any organization that intends to continue keeping afloat and actualize its organizational objectives must key into and maximize the opportunities presented to it in this era via ICT. For this reason, governments, the world over, have been adopting ICT in their everyday operations so as to become more efficient and effective in fulfilling its primary obligation to the citizenry, which is to bring development and uplift their living standards. The adoption of ICT in governance is referred to as e-governance. Following the adoption of ICT by the Federal Government of Nigeria, this study intends to evaluate its application in the Local government of Nigeria using the mentioned local governments as case study.

## STATEMENT OF THE PROBLEM

"The primary function of any government anywhere in the world is to provide welfare services and protect the lives of the citizens" (Nchuchuwe & Ojo, 2015). However, this has become a far cry in the local government of Nigeria. Provision of services to the citizens at an affordable, cheaper, faster and transparent way has become the bane of Nigerian local government. As Arowolo (2012) puts it, "Performance of Nigerian public service has been a major concern to policy makers and researchers as well. This is because despite all measures put in place to arrest the performance failure, the service, it seems, has defied all approaches towards tackling the problem of inefficiency and capacity collapse". The submission sums up the perennial problems bedeviling public service delivery in Nigeria. The Local government is not an exception. Indeed, not only is service delivery poor, the political elites have completely dominated the policy and decision making process thereby denying the populace the right to participate in the decisions



that affect them especially for service delivery. Coupled with this is poor revenue generation and colossal corruption in the local governments. As Adeyemi (2012) puts it, “corruption in the local government has become so canonically accommodated, entertained, and celebrated within the system”. To Oviasuyi et al (2010), “Corruption has become pervading, unabashed, uncontrolled and persistent. This perhaps explains the inefficiency and ineffectiveness in the local government administration in Nigeria. The system has virtually become superfluous and redundant”.

Quoting the Chairman of one of the anti-corruption agencies in Nigeria – the Independent Corrupt Practices and Other Related Offences Commission (ICPC) , Fajonyomi & *Olu-Owolabi* (2013) pointed out that the local government has become a “bastion of corruption” because “more than 12 out of 54 criminal cases it was having in courts were against local government chairmen and its officials”.

As Oruonye (2013) also puts it, corruption is so entrenched in the Nigerian local government system “so much so that practically nothing happens at the local government level”. This may be a pointer to the notion that the local government may be the most corrupt tier of government in the country. This must have also accounted for why a former chairperson of the Economic and Financial Crimes and Other Related Offences Commission, Mrs. Farida Waziri, painted a gloomy picture of the situation when she posited:

“... The waste of government resources at the council level had reached monumental proportions. The local government council in the country could not explain the mismanagement of over N3.313 trillion allocated to them across the country. Unfortunately, local government officials have not left their hands unsoiled in this regard. It is with regret that I am forced to observe that the local governments of the good old days have become a mere memory of times gone by. The paralysis (corruption) that pervades local governments today is widespread. Local government has become so far removed from the lives of the people to a point where some Chief Executives of local council no longer reside in the domains they were elected to administer. They drive to the council headquarters in their jeeps from the state capitals or the Federal Capital Territory, pay salaries and share other monies and disappear until it is time to share the next subvention” (Onwuemenyi, in Adeyemi, 2012). To say the least, public service delivery in the local government of Nigeria has become so abysmal calling for urgent attention and reforms of the system.

This is where the application of E-governance comes in. The Federal government of Nigeria enacted a law in 2002 for the application of E-governance in the public service of Nigeria. The adoption of E-governance (ICT), cannot be overlooked in ensuring the improvement of public service delivery in the local government system of Nigeria. This is because ICT is a major dynamic force in stimulating development and change in the digital age, and has the potential for increasing efficiency and effectiveness in the way government does its business. This study is therefore geared towards establishing the extent of its application and determine the problems therein to make its application result oriented.

## OBJECTIVES OF THE STUDY

The major objective of this study to examine the application of E-governance in the local government and determine any problem or problems associated with it. Other objectives include:

- To determine the extent to which the local governments are e-ready and compliant.
- To determine the extent to which service delivery has improved in the local government following the use of ICT
- To examine the use of web powered ICTs by the local government to improve participation of the communities in decision-making.
- To examine how government has used ICT tools to improve revenue generation, transparency, and accountability in the local government.
- To suggest ways of improving service delivery through e-governance in the local government?

## HYPOTHESES OF THE STUDY

The following hypotheses were formulated for the study:

### Hypothesis One

**H<sub>0</sub>:** Local government in Nigeria does not have all the facilities (web sites, electricity supply, computer/internet, e-centers etc) for E-governance application

**H<sub>1</sub>:** Local government in Nigeria has all the facilities (web sites, electricity supply, computer/internet, e-centers etc) for E- governance application

### Hypothesis Two

**H<sub>0</sub>:** E-governance has not enhanced service delivery in the local government of Nigeria.

**H<sub>1</sub>:** E-governance has enhanced service delivery in the local government of Nigeria.

### Hypothesis Three

**H<sub>0</sub>:** E-governance has not engendered the participation of the local communities in decision-making.

**H<sub>1</sub>:** E-governance has engendered participation of the local communities in decision-making.

### Hypothesis Four

**H<sub>0</sub>:** E-governance has not engendered transparency and accountability in the services of the local government.

**H<sub>1</sub>:** E-governance has engendered transparency and accountability in the services of the local government.

### **Hypothesis Five**

**H<sub>0</sub>:** E-governance has not engendered improved internally generated revenue in the services of the local government.

**H<sub>1</sub>:** E-governance has engendered improved internally generated revenue in the services of the local government.

## **REVIEW OF RELATED LITERATURE**

### **The concepts of E-governance**

E-governance has become a buzzword in public administration in this 21<sup>st</sup> century (Krishnan, 2013). It presents enormous opportunity to move governance forward by delivering qualitative, cost-effective public services to the citizenry. When e-governance is in place in any public sector organization, there is the prospect of government, having improved relationship with the general public, and its client (Nchuchuwe & Ojo, 2015)).

E-governance is not just about institutions with computers and the internet; its end result is to ensure that public services are provided to the general public in an efficient and effective manner that guarantees satisfaction. Thus as a public sector reform, e-governance is an inevitable tool for improving upon public service delivery (Nchuchuwe & Ojo, 2015). Ojo (2014) defines e-governance as the "...application of information communication technology by the government to enhance accountability, create awareness and ensure transparency in the management of government business." According to him, "it is a political strategy through which the activities of government are made known through the adoption of modern communication"

In the same vein, Estevez & Janowski (2013) conceives "Electronic Governance as the application of technology by government to transform itself and its interactions with customers, in order to create an impact on the society"

As Graham & Aurigi, (1997) put it, "many government agencies in developed countries have taken progressive steps toward the web and ICT use, adding coherence to all local activities on the Internet, widening local access and skills, opening up interactive services for local debates, and increasing the participation of citizens on promotion and management of the territory". The initiatives of government agencies and departments to use ICT tools and applications, Internet

and mobile devices to support good governance, strengthen existing relationships and build new partnerships within civil society have become relevant in modern times. As with e-commerce, e-Governance represents the introduction of a great wave of technological innovation as well as government reinvention. It represents a tremendous impetus to move forward in the 21st century with higher quality, cost effective government services and a better relationship between citizens and government (Fang, 2002).

### **Objectives of E-governance**

From the foregoing, it is glaring that e-governance aims to bridge the communication gap that had hitherto existed between the government and its customers (the citizens, businesses, employees and other government agencies). Nkwe (2012) outlines the objectives of e-governance to include the following:

- Cost reduction and efficiency gains;
- Quality of service delivery to businesses and customers;
- Transparency, anti - corruption, accountability;
- Increase in the capacity of government;
- Network and community creation;
- Improvement in the quality of decision – making;
- Promotion of the use of ICT in other sectors of the society.

### **Models of E-Governance**

The models of E-governance have been identified by various authors to include four (4) broad categories. They are as follows:

- **Government to Citizens (G2C):** This model of e-governance is geared towards creating links and communication channels between the government and the citizens. The essence is to establish an efficient, free flow of interaction between the government and the citizens (Nkwe, 2012).
- **Government to Government (G2G):** This model aims at making ICT the focal point of inter-governmental relations (Gant, 2008). The G2G model is said to be the fulcrum of e-governance.
- **Government to Employees (G2E):** This model seeks to make better the interactions between the government and its employees through the application of ICTs.
- **Government to Business (G2B):** This model seeks to make transactions between the government and the private sector better via the use of ICT. The G2B type of e-

governance is the linkage between the public and private sectors through the medium of the internet, the web and mobile communications technology. (Gant, 2008).

At the local government level, all these models are applicable. However, this study is more concerned with the G2C and G2E models.

### **E-Governance Implementation in the Nigerian Public Service**

The imposition of colonial rule by Britain in the geographical location now known as Nigeria in 1861 led to the establishment of structures and institutions of modern governance. Thus, the Nigerian public service is as old as colonial administration in Nigeria. Ayodele and Bolaji (2007) opined that “between 1900 and 1950, the Nigerian public service was dominated and controlled by British technocrats and generalist administrators”. From the pre-independence to independence and post-independence eras, the Nigerian public service has undergone various reforms and transformations which were geared towards making it more efficient and effective or bring “improvement in the ways and manners in which government is managed and public goods and services are delivered effectively, and efficiently” (Osawe, 2014).

Though e-governance implementation in the Nigeria public service varies from level to level of government as well as agency to agency, there was actually an attempt at providing a unified, national framework of ICT adoption in governance. According to Olatokun and Adebayo (2012), the federal government of Nigeria, in 2001, announced ICT as a policy of national importance. This further culminated in the creation of a policy on information technology in the same year.

The intention by the Nigerian government to establish an ICT policy was predicated by the United Nation’s adoption of the eight Millennium Development Goals in 2000, which set targets to reduce poverty, and ensure basic needs such as food, health, water, education, e.t.c., as well as guaranteeing the new benefits of new technologies, especially ICTs through public-private partnership (Olise, 2010).

The implementation of e-governance in Nigeria came with the realization that no country or its government can function properly in the information or digital age without the use of the web and the other mobile internet technologies. With the need to reform the public service and make it ICT-compliant, Nigerian Federal Government deemed it necessary to institute a national policy on ICT. Hence, in 2007, the enabling Act, the National Information Technology Development Act, was enacted by the National Assembly with an Agency established along with the Act, which was empowered to “plan, develop and promote the use of information technology in Nigeria” (Olatokun and Adebayo, 2012).

The National Information Technology Development Act of 2007 empowered various government agencies to embark on the implementation of ICTs in the public service. However, in 2011, the Federal Government created a new Ministry called the Ministry of Communications



Technology which was saddled with the mandate of streamlining ICT development and progress in line with the nation's plan for e-governance (Omerie and Omeire, 2014).

The National ICT draft policy was presented by the ministerial committee on ICT policy harmonization in 2012, which included several policy recommendations and reports. The following are the policy thrust of the National ICT draft policy of 2012, as it pertains to e-governance:

- To facilitate the implementation of e-government initiatives;
- To develop frameworks and guidelines, including interoperability and e-government framework for the enhanced development and use of ICT in the government;
- To develop and implement ICT training programs for public sector employees, in connection with introduction of e-government and other digital functions within government offices;
- To coordinate the integration of national e-government network infrastructure and services; and
- To promote e-government and other e-services that would foster broadband usages (National ICT Policy, 2012).

With implementing e-governance in the Nigerian public service, the private sector was also included in the process. The National Information Technology Development Act of 2007 made provisions for the avenue of public-private partnership in the adoption and management of ICTs in Nigeria by establishing the NeGST- National e-Government Strategies limited.

The NeGST was structured to be a three-party joint venture with shared roles and responsibilities. It comprised of the government (which is represented by NITDA), private and financial investors, and technology partners, with 5%, 15% and 80% share ownership in the joint venture, respectively (Omeire & Omeire, 2014). The essence of this strategic tripartite alliance called the NeGST was to create a viable unified national framework for the adoption and implementation of ICTs in the public service and their customers. The website of NeGST succinctly states that the purpose of its creation is “to facilitate drive, and implement the Nigerian e-government programme under a public-private partnership model”

## **PROSPECTS OF E-GOVERNANCE IMPLEMENTATION FOR PUBLIC SERVICE DELIVERY IN NIGERIA**

Service delivery is more complex in the public sector as it is not just about meeting expressed needs, but finding out the needs that are not expressed, setting priorities, resource allocation and publicly justifying and accounting for what has been done (Darma and Ali, 2014). For developing countries like Nigeria, the public sector plays major tasks in service delivery since the government is both employer of labour and owner of resources. In view of this, public

agencies have come under pressure and debate in recent years in terms of their efficiency and effectiveness in service delivery with respect to the needs and rights of the citizens.

The Nigerian public service is a stabilizing force for national unity and the core of government activities. It guarantees national cohesion and continuity in governance of the country. The crisis of service delivery and the perennial complaints of inefficiency and ineffectiveness on the Nigerian public service over the decades in Nigeria could be addressed by the immense benefits and prospects of e-governance implementation in the Nigerian bureaucracy (Nchuchuwe & Ojo, 2015).

The position of e-governance in Nigerian public service holds enormous advantages that can ensure improvements in service delivery. According to Coleman (2005), the prospects of e-governance implementation ensures that:

- A freer flow of information between departments, agencies and layers within government;
- More professional administrators, supported by standardized, electronically-embedded decision-making system;
- The routine provision of service according to impersonal rules, as oppose to clients arrangements;
- Transparency, particularly in relations to the procurement of government services;
- Opportunities to work in partnership with the private sector in modernizing government processes;
- A freer flow of information between government and citizens;
- The strengthening of intermediary democratic institutions, such as parliaments, local government, civil society organizations and independent media;
- Opportunities for citizens to participate more directly in policy development;
- Opportunities to combine traditional and modern methods of accountability.

## METHODOLOGY

The study adopted the survey method and other secondary sources to gather data. The population of the study is the employees of Ojo and Alimosho local government areas totaling 748, while the sample size for the two local government areas is 100, with 50 respondents selected from each of the local government areas using the simple random technique.

Structured questionnaires were designed to elicit responses from the respondents. The questionnaire was administered by the researchers in person.

The data from the questionnaire was analyzed section by section, using bar charts, tables, and simple percentages.

50 questionnaires were distributed to each of the local government area. At the end, 47 questionnaires were retrieved from Ojo local government area, while 49 questionnaires were retrieved from Alimosho local government area.

**Classification of Respondents’ Characteristics**

This section covers the biographical data of respondents, such as sex, age distribution, marital status, educational qualification, working experience, e.t.c.

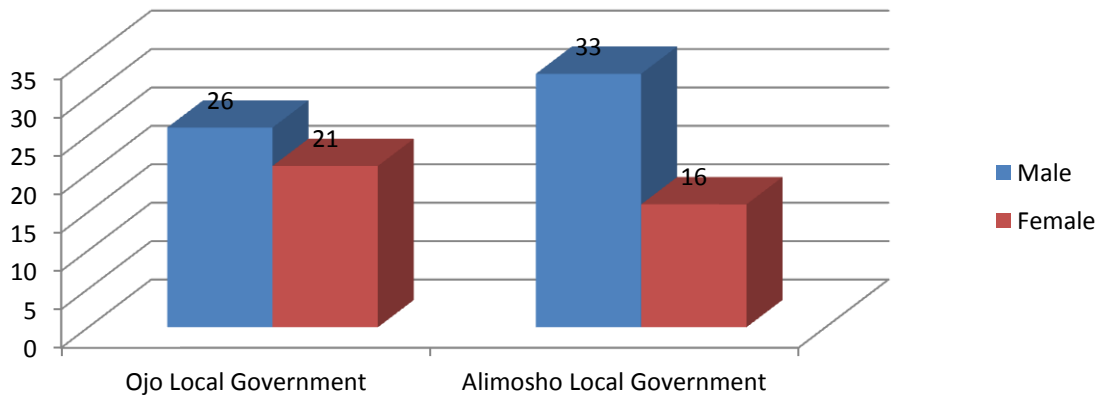
**Table 1: Sex Distribution of Respondents**

Local Govt	Sex Distribution		Total
	Male	Female	
Ojo	26	21	47
Alimosho	33	16	49

*Source: Field study, March, 2016.*

Table 1 reveals that the respondents were made up of more men than women. This is not unexpected as more men dominate the public service in Nigeria especially the local government. Below is a bar chart presentation of respondents by sex distribution for the two local government areas:

**Figure 1. Respondents By Sex Distribution**



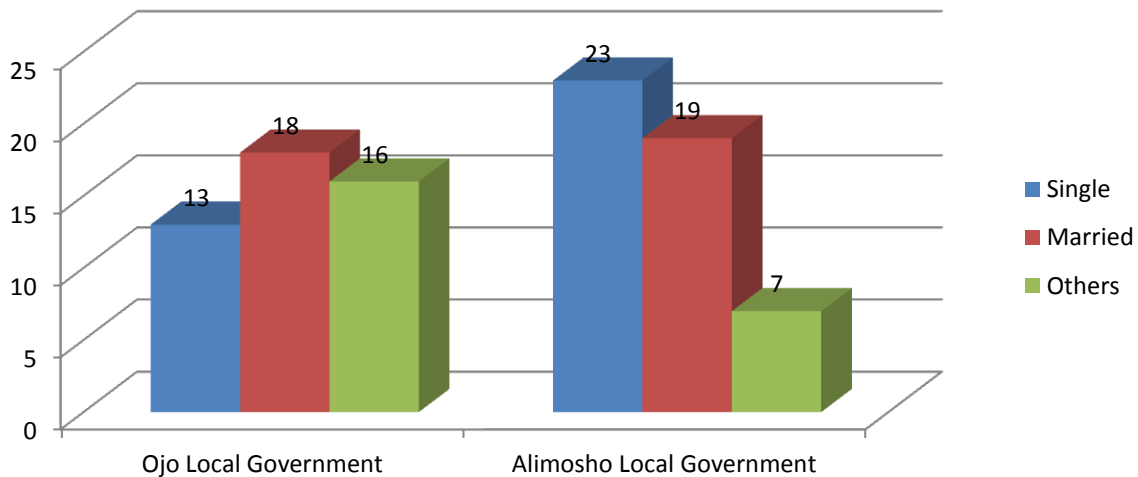
*Source: Field study, March, 2016.*

**Table 2: Marital Status of Respondents**

Local Govt	Marital Status			Total
	Single	Married	Others	
Ojo	13	18	16	47
Alimosho	23	19	07	49

*Source: Field study, March, 2016.*

Table 2 reveals that there are more married respondents in Ojo local government than in Alimosho local government which has more unmarried respondents than other categories. This shows that there is no marital status bias in the local government areas under study. Below is a bar chart presentation of respondents by marital status for the two local government areas:



Source: Field study, March, 2016.

**Table 3: Age Distribution of Respondents**

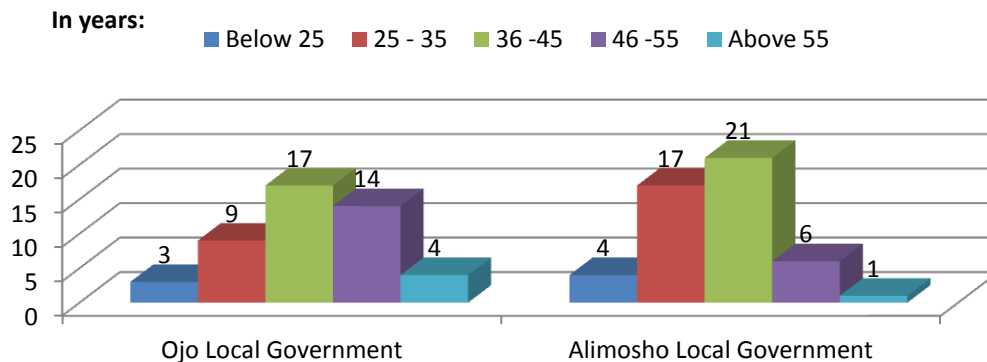
Local Govt	Age Distribution (in Years)					Total
	Below 25	25 – 35	36 - 45	46 - 55	Above 55	
Ojo	03	09	17	14	4	47
Alimosho	04	17	21	06	1	49



*Source: Field study, March, 2016.*

Table 3 reveals that the two local governments have high number of respondents within the age range of 36 – 45 years. This signifies that most of the respondents are matured enough to respond meaningfully to the issues raised in the study. Below is a bar chart presentation of respondents by age distribution for the two local government areas:

**Figure 3. Respondents By Age Distribution**



*Source: Field study, March, 2016.*

**Table 4: Level of Educational Qualification of Respondents**

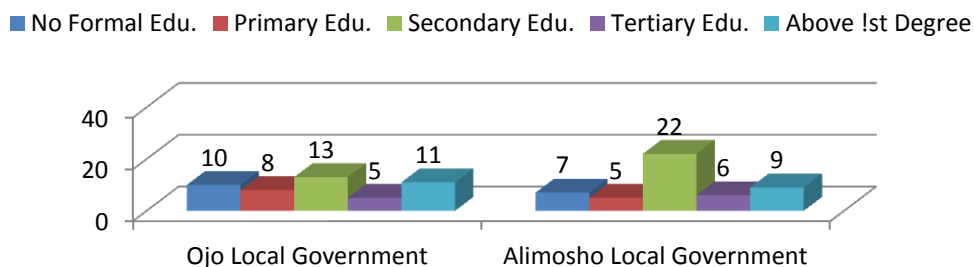
Local Govt	Age Distribution (in Years)					Total
	No Formal Education	Primary Education	Secondary Education	Tertiary Education	Above First Degree	
Ojo	10	08	13	05	11	47
Alimosho	07	05	22	06	09	49

*Source: Field study, March, 2016.*

Table 4, reveals that majority of the respondents have good education with many having secondary school leavers’ certificates. This shows that they are knowledgeable enough to respond meaningfully to the Questions raised. Below is a bar chart presentation of respondents by level of educational qualification for the two local government areas:



**Figure 4. Respondents By Level of Educational Qualification**



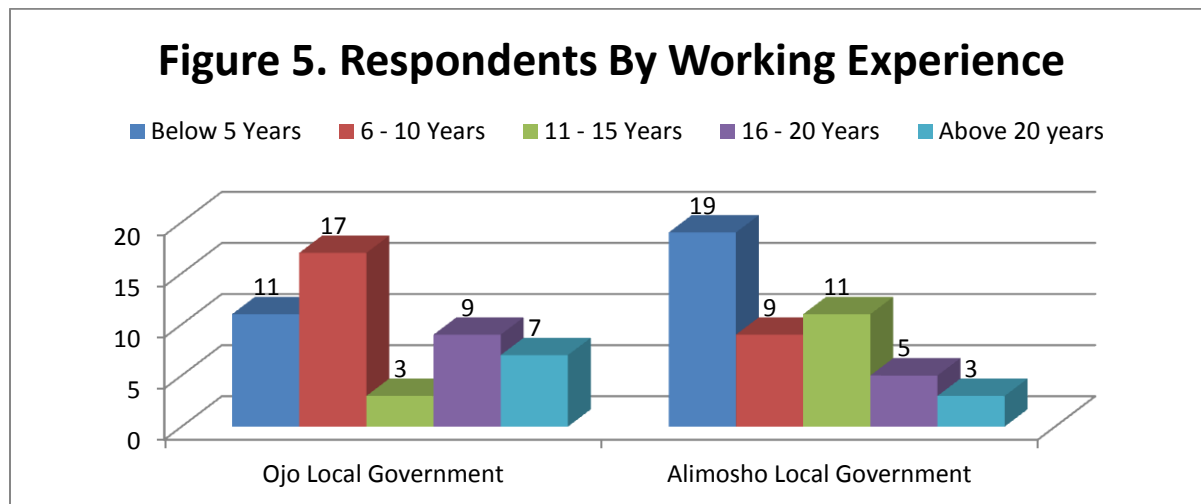
*Source: Field study, March, 2016.*

**Table 5: Working Experience of Respondents**

Local Govt	Working Experience (in Years)					Total
	Below 5	6 -10	11 - 15	16 - 20	Above 20	
Ojo	11	17	03	09	07	47
Alimosho	07	09	23	05	03	49

*Source: Field study, March, 2016.*

In table 5, most of the employees in Ojo local government have working experience of between 6 to 10 years, while in Alimosho local government most of the employees have working experience of between 11 to 20 years. This shows that majority of the respondents have long working experience to ascertain the effect of E-governance on service delivery in the local governments. Below is a bar chart presentation of respondents working experience for the two local government areas:



*Source: Field study, March, 2016.*

**Table 6: Staff Categories of Respondents**

Local Govt	Staff Categories			Total
	Junior	Senior	Management	
Ojo	09	32	06	47
Alimosho	07	39	03	49

*Source: Field study, March, 2016.*

Table 6 reveals that the two local governments have the highest number of respondents in the senior staff category. This shows that majority of the respondents are in better official positions to know what obtains in the local government.

**Table 7: Religions of Respondents**

Local Govt	Religion			Total
	Christianity	Islam	Others	
Ojo	25	15	07	47
Alimosho	18	23	06	49

*Source: Field study, March, 2016.*

Table 7, reveals that most of the respondents in Ojo local government are Christians, while in Alimosho local government, most of the respondents are Muslims. This shows that the study is not religiously biased.

**PRESENTATION AND ANALYSIS OF RESEARCH STATEMENTS**

Under this section, the responses from the respondents were analyzed and presented using Descriptive statistics namely, tables and simple percentages.

**Table 8: Respondents on whether the use of ICT (Information and communications technology) has improved service delivery in Ojo and Alimosho local governments**

Variables	Local Government			
	OJO		ALIMOSHO	
	Frequency	Percentage	Frequency	Percentage
Strongly Disagreed	18	38.3	13	26.5
Disagreed	17	36.2	29	59.2
Undecided	02	4.3	01	2.0
Agreed	07	14.9	04	8.2
Strongly Agreed	03	6.4	02	4.1
<b>Total</b>	47	100	49	100

*Source: Field study, March, 2016.*

Table 8, shows that 38.3% and 36.2% of respondents from Ojo local government strongly disagreed and disagreed respectively that the use of ICT has improved service delivery in the local government; 14.9% and 6.4% agreed and strongly agreed respectively that the use of ICT has improved service delivery, while 4.3% were undecided. On the other hand, at Alimosho local government 26.5% strongly disagreed, 59.2% disagreed, 2.0% were undecided, 8.2% agreed and 4.1% strongly agreed. This implies that majority of the respondents are of the view that the use of ICT has not improved service delivery in these local governments.

**Table 9: Respondents on whether ICT has promoted close relationship between government staff and the public in Ojo and Alimosho local governments**

Variables	Local Government
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	OJO		ALIMOSHO	
	Frequency	Percentage	Frequency	Percentage
<b>Strongly Disagreed</b>	17	36.2	16	32.7
<b>Disagreed</b>	16	34.0	17	34.7
<b>Undecided</b>	03	6.4	02	4.1
<b>Agreed</b>	07	14.9	09	18.4
<b>Strongly Agreed</b>	04	8.5	05	10.2
<b>Total</b>	47	100	49	100

*Source: Field study, March, 2016.*

Table 9 reveals that 36.2% and 34.0% of the respondents from Ojo local government strongly disagreed and disagreed respectively that ICT has brought close relationship between the staff and the public in the local governments; 6.4% and 14.9% agreed and strongly agreed respectively, while 8.5% were undecided. On the other hand, in Alimosho local government, 32.7% strongly disagreed, 34.7% disagreed, 4.1% were undecided, 18.4% agreed and 10.27% strongly agreed. This implies that workers in the two local governments disagreed that ICT has brought close relationship between government staff and the public

**Table10: Responses on whether the public contribute to policy and decision-making through ICT in Ojo and Alimosho local governments.**

Variables	Local Government			
	OJO		ALIMOSHO	
	Frequency	Percentage	Frequency	Percentage
<b>Strongly Disagreed</b>	11	23.4	13	26.5
<b>Disagreed</b>	18	38.3	15	30.6
<b>Undecided</b>	02	4.3	03	6.1
<b>Agreed</b>	09	19.1	10	20.4
<b>Strongly Agreed</b>	07	14.9	09	18.4



<b>Total</b>	47	100	49	100
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*Source: Field study, March, 2016.*

Table 10 reveals that 23.4% and 38.3% of respondents from Ojo local government strongly disagreed and disagreed respectively that the public contribute to policy and decision-making through ICT; 19.1% and 14.9% agreed and strongly agreed respectively, while 4.3% were undecided. On the other hand, in Alimosho local government, 26.5% strongly disagreed and 30.6% disagreed while 20.4% agreed, 18.4% strongly agreed, 6.1% were undecided. From the analyses, it is clear that policy making is still centered on the political elites in the local governments.

**Table11: Respondents on whether ICT has made work faster, interesting and less cumbersome in Ojo and Alimosho local governments.**

Variables	Local Government			
	OJO		ALIMOSHO	
	Frequency	Percentage	Frequency	Percentage
<b>Strongly Disagreed</b>	03	6.4	05	10.2
<b>Disagreed</b>	07	14.9	13	26.5
<b>Undecided</b>	01	2.1	06	12.2
<b>Agreed</b>	16	34.0	16	32.7
<b>Strongly Agreed</b>	10	21.3	09	18.4
<b>Total</b>	47	100	49	100

*Source: Field study, March, 2016.*

Table 11 reveals that 6.4% and 14.9% of respondents from Ojo local government strongly disagreed and disagreed respectively that ICT has made work faster, interesting and less cumbersome; 34.0% and 21.3% agreed and strongly agreed respectively while 2.1% were undecided. Similarly, in Alimosho local government, 10.2% strongly disagreed, 26.5% disagreed, 12.2% were undecided, 32.7% agreed and 18.4% strongly agreed. This shows that majority of the respondents are of the view that ICT has made work faster, interesting and less cumbersome in the Nigerian local government system.

**Table12: Respondents on whether financial wastages and leakages have not been reduced since the use of ICT in Ojo and Alimosho local governments.**



Variables	Local Government			
	OJO		ALIMOSHO	
	Frequency	Percentage	Frequency	Percentage
<b>Strongly Disagreed</b>	06	12.8	07	14.3
<b>Disagreed</b>	07	14.9	01	2.0
<b>Undecided</b>	05	10.6	02	4.1
<b>Agreed</b>	18	38.3	18	36.7
<b>Strongly Agreed</b>	11	23.4	21	42.9
<b>Total</b>	47	100	49	100

*Source: Field study, March, 2016.*

Table 12 reveals that 12.8% and 14.9% of respondents from Ojo local government strongly disagreed and disagreed respectively that financial wastage and leakages have been reduced since the use of ICT in the local government; 38.3% and 23.4% agreed and strongly agreed respectively while 10.6% were undecided. Similarly, in Alimosho local government, 14.3% strongly disagreed, 2.0% disagreed, 4.1% were undecided, 36.7% agreed and 42.9% strongly agreed. This implies that the respondents were favourably disposed to the view that wastages and leakages have not been reduced on the use of ICT in the local governments. This is also a pointer that E-governance is not fully applied in the local governments.

**Table13: Respondents on whether the needs of citizens are quickly recognized and treated through the use of ICT in Ojo and Alimosho local governments.**

Variables	Local Government			
	OJO		ALIMOSHO	
	Frequency	Percentage	Frequency	Percentage
<b>Strongly Disagreed</b>	07	14.9	07	14.3
<b>Disagreed</b>	03	6.4	10	20.4
<b>Undecided</b>	01	2.1	01	2.0
<b>Agreed</b>	17	36.2	16	32.7

<b>Strongly Agreed</b>	19	40.4	15	30.6
<b>Total</b>	47	100	49	100

*Source: Field study, March, 2016.*

Table 13 reveals that 14.9% and 6.4% of respondents from Ojo local government strongly disagreed and disagreed respectively that the needs of the citizens are quickly recognized and treated through the use of ICT; 36.2% and 40.4% agreed and strongly agreed respectively. On the other hand, in Alimosho local government, 14.3% strongly disagreed, 20.4% disagreed, 2.0% were undecided, 32.7% agreed and 30.6% strongly agreed. This implies that the respondents appreciate that the needs of local citizens can quickly be recognized and treated through the use of ICT in the local governments.

**Table14: Respondents on whether there are no complaints from the public as a result of the use of ICT for service delivery in Ojo and Alimosho local governments.**

Variables	Local Government			
	OJO		ALIMOSHO	
	Frequency	Percentage	Frequency	Percentage
<b>Strongly Disagreed</b>	16	34.0	13	26.5
<b>Disagreed</b>	17	36.2	11	22.4
<b>Undecided</b>	03	6.4	04	8.2
<b>Agreed</b>	04	8.5	17	34.7
<b>Strongly Agreed</b>	07	14.9	04	8.2
<b>Total</b>	47	100	49	100

*Source: Field study, March, 2016.*

Table 14 shows that 34.0% and 36.2% of the respondents from Ojo local government strongly disagreed and disagreed respectively that there are no complaints from the public because of the use of ICT in service delivery; 8.5% and 14.9% agreed and strongly agreed respectively while 6.4% were undecided. On the other hand, in Alimosho local government, 26.5% strongly disagreed, 22.4% disagreed, 8.2% were undecided, 34.7% agreed and 8.2% strongly agreed. This implies that majority of the respondents share similar views that the use of ICT in the two local governments for service delivery in Nigeria has led to some complaints from the public.

**Table15: Respondents on whether ICT has ensured an efficient and effective financial management system in Ojo and Alimosho local governments.**

Variables	Local Government			
	OJO		ALIMOSHO	
	Frequency	Percentage	Frequency	Percentage
<b>Strongly Disagreed</b>	06	12.8	07	14.3
<b>Disagreed</b>	07	14.9	04	8.2
<b>Undecided</b>	05	10.6	05	10.2
<b>Agreed</b>	18	38.3	17	34.7
<b>Strongly Agreed</b>	11	23.4	16	32.7
<b>Total</b>	47	100	49	100

*Source: Field study, March, 2016.*

Table 15 shows that 12.8% and 14.9% of the respondents from Ojo local government strongly disagreed and disagreed respectively that ICT has ensured an efficient and effective financial management system; 38.3% and 23.4% agreed and strongly agreed respectively while 10.6% were undecided. On the other hand, in Alimosho local government, 14.3% strongly disagreed, 8.2% disagreed, 10.2% were undecided, 34.7% agreed and 32.7% strongly agreed. This implies that majority of the respondents share the view that ICT has engendered an efficient and effective financial management system in Nigerian local governments.

**Table16: Respondents on whether revenue generation has not greatly improved in Ojo and Alimosho local governments with ICT applications.**

Variables	Local Government			
	OJO		ALIMOSHO	
	Frequency	Percentage	Frequency	Percentage
<b>Strongly Disagreed</b>	10	21.3	11	22.4
<b>Disagreed</b>	05	10.6	09	18.4
<b>Undecided</b>	03	6.4	01	2.0



<b>Agreed</b>	16	34.0	13	26.5
<b>Strongly Agreed</b>	13	27.7	15	30.6
<b>Total</b>	47	100	49	100

*Source: Field study, March, 2016.*

Table 16 shows that 21.3% and 10.6% of the respondents from Ojo local government strongly disagreed and disagreed respectively that revenue generation has not greatly improved; 34.0% and 27.7% agreed and strongly agreed respectively while 6.4% were undecided. On the other hand, in Alimosho local government, 22.4% strongly disagreed, 18.4% disagreed, 2.0% were undecided, 26.5% agreed and 30.6% strongly agreed. This implies that majority of the respondents' share the view that revenue generation has not greatly improved in the two local governments.

**Table17: Respondents on whether workers derive greater job satisfaction via the use of ICT in their jobs in Ojo and Alimosho local governments.**

Variables	Local Government			
	OJO		ALIMOSHO	
	Frequency	Percentage	Frequency	Percentage
<b>Strongly Disagreed</b>	09	19.1	06	12.2
<b>Disagreed</b>	05	10.6	09	18.4
<b>Undecided</b>	01	2.1	04	8.2
<b>Agreed</b>	19	40.4	18	36.7
<b>Strongly Agreed</b>	13	27.7	12	24.5
<b>Total</b>	47	100	49	100

*Source: Field study, March, 2016.*

Table 17 shows that 19.1% and 10.6% of the respondents from Ojo local government strongly disagreed and disagreed respectively that workers derive greater job satisfaction via the use of ICT in their jobs; 40.4% and 27.7% agreed and strongly agreed respectively while 2.1% were undecided. On the other hand, in Alimosho local government, 12.2% strongly disagreed, 18.4% disagreed, 8.2% were undecided, 36.7% agreed and 24.5% strongly agreed. This implies that

majority of the respondents are of the view that workers derive greater job satisfaction via the use of ICT in their jobs in the two local governments.

**Table18: Respondents on whether transparency and accountability have not improved since the adoption of ICT in Ojo and Alimosho local governments.**

Variables	Local Government			
	OJO		ALIMOSHO	
	Frequency	Percentage	Frequency	Percentage
Strongly Disagreed	19	40.4	16	32.7
Disagreed	14	29.8	13	26.5
Undecided	05	10.6	07	14.3
Agreed	06	12.8	09	18.4
Strongly Agreed	03	6.4	04	8.2
<b>Total</b>	<b>47</b>	<b>100</b>	<b>49</b>	<b>100</b>

*Source: Field study, March, 2016.*

Table 18 shows that 40.4% and 29.8% of respondents from Ojo local government strongly disagreed and disagreed respectively that transparency and accountability have not improved since the adoption of ICT in the two local governments; 12.8% and 6.4% agreed and strongly agreed respectively while 10.6% were undecided. On the other hand, in Alimosho local government, 32, 7% strongly disagreed, 26.5% disagreed, 14.3% were undecided, 18.4% agreed and 8.2% strongly agreed. With majority of the respondents disagreeing, it shows that transparency and accountability have improved in the two local governments since the adoption of ICT.

**Table19: Respondents on whether ICT will modernize Ojo and Alimosho local governments, and make them more dynamic in their activities.**

Variables	Local Government			
	OJO		ALIMOSHO	
	Frequency	Percentage	Frequency	Percentage



<b>Strongly Disagreed</b>	17	36.2	13	26.5
<b>Disagreed</b>	14	29.8	19	38.8
<b>Undecided</b>	02	4.3	04	8.2
<b>Agreed</b>	09	19.1	05	10.2
<b>Strongly Agreed</b>	05	10.6	08	16.3
<b>Total</b>	47	100	49	100

*Source: Field study, March, 2016.*

Table 19 shows that 36.2% and 29.8% of the respondents from Ojo local government strongly disagreed and disagreed respectively that ICT will not modernize and make the local government system more dynamic in its activities; 19.1% and 10.6% agreed and strongly agreed respectively while 4.3% were undecided. On the other hand, in Alimosho local government, 26.5% strongly disagreed, 38.8% disagreed, 8.2% were undecided, 10.2% agreed and 16.3% strongly agreed. This implies that majority of the respondents share the view that ICT will bring modernization to the two local governments and will make them more dynamic in the use of modern technology for their activities.

**Table 20: Respondents on whether the two Local governments have all the facilities (web sites, electricity supply, computer/internet, e-centers etc) for E- governance application**

Variables	Local Government			
	OJO		ALIMOSHO	
	Frequency	Percentage	Frequency	Percentage
<b>Strongly Disagreed</b>	12	25.53	11	22.45
<b>Disagreed</b>	30	63.83	34	69.39
<b>Undecided</b>	0	0	1	2.04
<b>Agreed</b>	4	8.51	3	6.12
<b>Strongly Agreed</b>	1	2.13	0	0
<b>Total</b>	47	100	49	100

*Source: Field study, March, 2016.*



Table 20 shows that 25.5% and 63.8% of the respondents from Ojo local government strongly disagreed and disagreed respectively that the Local government has all the facilities (web sites, electricity supply, computer/internet, e-centers etc) for E- governance application while non was indifferent. 8.5% and 2.13% strongly agreed and agreed respectively. Similarly, in Alimosho local government, 22.4% and 69.3% strongly disagreed and disagreed respectively with only one respondent indifferent, while 6.12% only agreed. None disagreed. The implication of this is that the respondents are of the view that their local governments are not e-ready.

### **Test of Hypotheses**

The following formulated hypotheses for the study were tested using descriptive statistics.

#### **Hypothesis One**

**H<sub>0</sub>:** Local government in Nigeria does not have all the facilities (web sites, electricity supply, computer/internet, e-centers etc) for E-governance application

**H<sub>1</sub>:** Local government in Nigeria has all the facilities (web sites, electricity supply, computer/internet, e-centers etc) for E- governance application

Tables 13 and 20 were used to test this hypothesis. From table 13, the respondents agree that service provisions to the people have not been through the application of ICT. 69.8% held this view. Similarly, it was clear from the responses on table 20 that the two local governments under study are far from being E-governance ready. This is because the necessary facilities required for the application are not present. For E-governance to take off and be successful such facilities like electricity, ICT trained personnel, web sites, computers etc must be available. Since majority of the respondents (90.63%) disagreed that the facilities are available, the null hypotheses is accepted while the alternative hypotheses is rejected.

#### **Hypothesis Two**

**H<sub>0</sub>:** E-governance has not enhanced service delivery in the local government of Nigeria.

**H<sub>1</sub>:** E-governance has enhanced service delivery in the local government of Nigeria.

Tables 8 and 11, were used to test this hypotheses. From the tables, it was clear that service delivery in the two local governments has not been enhanced. The implication of this is that E-governance has not been put into full application in the two local governments. From table 8, majority of the respondents (80.21%) concurred that service delivery is still very poor. From table 11, the respondents concurred that service delivery has not been made faster, interesting and less cumbersome in the two local governments.53.2% held this view in the two local governments. For this reason the null hypothesis is accepted and the alternative hypothesis is

rejected. The point is clear that with E-governance service delivery can be enhanced and become faster and cumbersome.

### **Hypothesis Three**

**H<sub>0</sub>:** E-governance has not engendered the participation of the local communities in decision-making.

**H<sub>1</sub>:** E-governance has engendered participation of the local communities in decision-making.

Table 10 was used to test this hypothesis. The respondents (59.37%) disagreed with the suggestion that the citizens make contributions to policy making in the two local governments, Contributions to decision making is one of the hall marks of E-governance. The implication of this is that the leaders of the local government are still elitist hovering the policy making process among themselves. The null hypothesis is thus accepted and the alternative hypothesis rejected.

### **Hypothesis Four**

**H<sub>0</sub>:** E-governance has not engendered transparency and accountability in the services of the local government.

**H<sub>1</sub>:** E-governance has engendered transparency and accountability in the services of the local government.

Table 18 was used to test this hypothesis. The respondents in the two local governments concur that Accountancy and Transparency have not improved in the local governments as majority of the respondents (69.2%) disagreed. Again accountability and transparency are hallmarks of E-governance and its non improvement in the local governments cannot be completely separated from the fact that there is poor or non application of E-governance in the local governments. The null hypothesis is therefore accepted and the alternative hypothesis rejected.

### **Hypothesis Five**

**H<sub>0</sub>:** E-governance has not engendered improved internally generated revenue in the services of the local government.

**H<sub>1</sub>:** E-governance has engendered improved internally generated revenue in the services of the local government.

Tables 12 and 16 were used to test the hypothesis. Majority of the respondents (70.8%) in table 12 disagreed that financial wastages and leakages have reduced in the local governments. Ditto for table 16 where the respondents (59.4%) jointly agreed that revenue generation is still poor in

the local governments. The null hypothesis is thus accepted and the alternative hypothesis rejected.

## DISCUSSIONS OF MAJOR FINDINGS

Having analyzed and interpreted the data obtained from the two local governments (Ojo and Alimosho) coupled with the various interviews the researchers had with officials of the local governments, it became clear that the application of E-governance is still a far cry in the local government areas. The researchers observed that the concept was strange to many of the officials of the local governments. Only few knew what it was while many interpreted it to mean using electronic means to pay staff salaries and direct lodgments into the bank by tax payers and other who are in transaction with the local governments. Throughout the period of the study, the researchers did have the opportunity of meeting with the chairmen of the local governments but some officials who sought for protection revealed that the chairmen hardly come or stay in the office. This is in line with the views expressed by a former chairperson of EFCC, Mrs Farida Waziri that “Local government has become so far removed from the lives of the people to a point where some Chief Executives of local council no longer reside in the domains they were elected to administer. They drive to the council headquarters in their jeeps from the state capitals or the Federal Capital Territory, pay salaries and share other monies and disappear until it is time to share the next subvention” (Onwuemenyi, in Adeyemi, 2012). The application of E-governance requires the full attention of the leaders in the local governments and where this is not present adoption and implementation of a project like E-governance will become difficult.

It was also observed that the local governments were generally short of been ready for E-governance. None of the major facilities required for E-governance was available. Though there was a claim by some of the officials that there exist websites in the local governments but there were largely ineffective and available for public use. E-governance can only operate were websites are available for various information and access. Similarly, though some of the officials claim to have worked and acquired skills working with the local government, they have never been trained for skills on effective E-governance implementation. This also goes to buttress the point that the local governments are truly not e-ready. Also, there is the problem of poor electricity supply and unavailability of computers or other forms of telecommunications. The researchers also observed that many of the officials interacted with seem not to like the idea of E-governance for what some of them considered capable of sending them to the labour market. The implication of this is that the amount of cooperation a project like E-governance may require may become elusive thereby hindering its application. When the researchers interviewed some of the local citizens it was observed that majority of them lack knowledge of what E-governance is about. Aside from this they also complained about electricity supply, lack of computer knowledge, and non possession of computers or laptops-useful instruments for E-governance applications. Having said these, efforts have to be made to ensure that the wherewithals required

for E-governance to be applied in the local governments should be put in place if the local governments must strive towards effective service delivery in the 21<sup>st</sup> century.

## CONCLUSION

E-government is a concept that has been defined from various perspectives by various authors. However, the core of e-governance is on the provision of governmental services via the use of information and communication technology. Generally, the success of e-governance is geared towards the improvement of services to the citizens among others in a faster, cheaper and effective manner. The importance of e-governance in public service delivery cannot be over emphasized.

As Fang (2002), puts it “E-Governance represents the introduction of a great wave of technological innovation as well as government reinvention. It represents a tremendous impetus to move forward in the 21st century with higher quality, cost effective government services and a better relationship between citizens and government”.

With e-governance, the public can expect speedy, enhanced, affordable, and more accessible services from the government. Also, e-governance tends to build bridges between the government and the governed, by creating better relationships, more transparency, more engagement and trust.

This study critically examined the state of e-governance application in Ojo and Alimosho local governments of Nigeria as it relates to their services to the public. The study was able to ascertain the possibility of the Nigerian local governments to practice e-governance with the aim of improving service delivery, reducing wastages and other factors that militate against efficiency and effectiveness. However, there are a lot of gaps which were revealed from the study which must be filled for E-governance to be applied.

## RECOMMENDATIONS

This study recommends a re-visit of the country’s ICT policy, especially with regards to e-governance implementation in the local governments. There should be a concerted effort towards providing adequate communication facilities towards a complete computerization of local government operations, and transactions with the public.

Moreover, the study advocates that practical steps be taken with the purpose of ensuring that there is sufficient and stable supply of electricity, public enlightenment and the development of human resource so as to accomplish top computer literacy level and ICT compliance among the vast majority of the local public and employees.



Also, the accessibility of internet facilities and services must increase among the populace by ensuring that it is less expensive, to all Nigerians, regardless of which ever part of the country they reside. The world is on the move and Nigeria is an integral part of it, hence, should not lag behind in terms of the use of ICT.

In addition, the Nigerian government must come to the awareness that the world as it is now is completely digitalized, and that no organization can efficiently overcome the realities and challenges of this modern times without integrating its system into the world of ICT. Thus, the public sector cannot continue to do things the old ways it has been used to doing over the years and expect different results. To achieve the much desired results, there must be a paradigm shift from the old methods of getting things done, by inculcating and imbibing new ideas that will make work faster, less cumbersome and at the same time engender development in vital sectors of the economy. The implementation of e-governance in Nigeria's local government and the public sector in general is, certainly, an innovative and far-reaching reform which would invariably result in the improvement of public service delivery.

Hence, it behooves the Nigerian government to make concerted efforts to ensure that the implementation of e-governance in the public sector is not only embraced, sustained, but becomes the driving force for efficient and effective service delivery to the general public. Any nation that is seeking to become a key player in the global scheme of things must not be left behind in this Information Age. In the world today, no country can thrive on and experience economic growth and prosperity on the basis of its natural resources without keying into ICT (e-governance). To successfully have ICT running unhindered and fully functional in the public sector, deliberate plans should be made to ensure that mass education, enlightenment campaign on ICT and e-governance system, provision of enabling environment and power supply are available. The Federal government has the potential of putting Nigeria on the tract towards accomplishing efficient and effective public service delivery at all levels of government in the 21<sup>st</sup> century with E-governance if the political will is there.

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**APPENDICE**

**QUESTIONNAIRE FOR THE STUDY ADMINISTERED TO THE EMPLOYEES OF OJO AND ALIMOSHO LOCAL GOVERNMENT.**

		YES	NO	I CAN'T SAY
1	Are you aware of the application of E-governance in your Local government?			
2	Have you been trained to use the website?			
3	Have you used the local government websites before?			
4	Is your local government website linked to other websites?			
5	Do you use the website to communicate with other staff?			
6	Is the Information on your local government website up to date?			
7	Does the citizen have access to Information in your local government by electronic means?			
8	Does the website allow you to relate with the public online?			
9	Have you ever rendered services online using the website?			
10	Is there a budget to manage your local government website?			

11	Does the website allow you to relate with political leaders online?			
12	Do you relate with other political leaders online?			
13	Using the website you can express your views			
14	Do you trust that information posted on the website is secure?			
15	Have you ever sought for people's views on the website?			
16	Have you received feedback using the website?			
17	Have you completely migrated to using the website?			
18	The website has made communication between staff and citizens easy			
19	It has reduced on daily working costs			
20	It has enabled faster decision making			
21	It has increased transparency in government			
22	It has reduced the level of corruption			

		Adequately available	Available	Scantly available	Not available	I cannot say
1	Funds to sustain the website.					
2	IT skills among staff members					
3	Political will by politicians.					
4	Trust in the website due to past system failures.					

5	Availability of computers.					
6	Power supply.					
7	Negative attitude to use of the website					
8	High illiteracy rate among citizens.					
9	Financial resources for ICT.					
10	Website connectivity devices like MODEMS.					
11	Web presence where information can be posted.					
12	Training staff members to enable them use the website.					
13	Linking the website to websites of other local governments.					
14	Sensitizing citizens on the relevancy of the website					
15	Building trust in citizens by providing security to information.					
16	Putting in place other ICT facilities					





## ***Cyber Security and Cybercrimes***



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**TACKLING CORPORATE- FRAUD IN NIGERIA:AN ENQUIRY INTO THE EFFICACY  
OF FINANCIAL INVESTIGATION AND DISCLOSURE MECHANISMS OF ANTI-MONEY  
LAUNDERING LEGISLATION.**

Maruf Adeniyi NASIR\*

**Abstract**

*Businesses all over the world are embracing Electronic Businesses (E-Businesses) to meet the challenges of the 21st Century. Hence companies in Nigeria are becoming computerized in response to global demands and international best practices. However, the development of e-businesses as a result of advancement in technology poses fraud challenges to managers and regulators of corporations. This paper examines the concept of financial investigation and disclosure as defense mechanisms against corporate and e-fraud in Nigeria within the ambience of reforms that followed corporate frauds and failures which swept across the world in the last one decade. In writing this paper, primary research materials were sourced from relevant statutes. Secondary research materials such as textbooks and law journals containing articles by academic writers were also considered. The paper finds that though investigations are usually mounted after the incidence of corporate and e-frauds had happened, it could be a useful tool in curtailing the occurrence of fraud and can reduce or even prevent the menace from occurring. Company administrators, managers and regulators are enjoined to incorporate adequate disclosure requirements in promoting corporate governance with a view to checking company failures, insiders' abuse and e-fraud.*

**Keywords:** *Corporate fraud, E-fraud, Financial Investigation, Disclosure*

1. INTRODUCTION

Technology has become the rave of the moment. Its rapid development has heralded a new dawn. And this has become a new dawn of possibilities for businesses of all shapes and sizes. And the corporate institutions all over the world have embraced e-business services as channels for doing business. The adoption of the e-business in the developed and developing economies serves as the basic motivational factors for easier and efficient ways of doing business. The internet as it is generally called today has been viewed as the amalgamation of network of

computers which enables organizations as well as individuals to engage in communications through electronic means, it also assists in the conduct of businesses, sharing of and accessing already stored information. The World Wide Web (www) and the internet are the most widely used information channels ever.<sup>39</sup>

Thus, advancement recorded so far in technologies especially those related to communications and information are attracting attention in business transactions; the banking industry is however not an exception.<sup>40</sup> The world is becoming a global village as a result of advancement in information and communication technologies. Unfortunately, the diffusion of e-business services in the developing countries of the world lags behind to that of developed countries.<sup>41</sup>

However, the introduction of e-business has brought with itself so challenges ranging from that of fraud to corporate failure in consequence. For example, the cash-less banking initiative created by the Central Bank of Nigeria (CBN) to reduce transaction and currency management costs is threatened by fraud and inefficient technology deployed in banks. The policy faced severe backlashes from bank customers.<sup>42</sup>

Such concerns over banking security have put wide embrace of e-payment channels in abeyance. A recent survey by Visa International showed that high net worth account holders neither own nor use ATM cards. The study revealed that people that earn below N500, 000 per annum, which form 47 percent of its respondents, own and are regular users of debit cards, including for online purchases. It showed that the higher people earn, the less they own and use their debit cards.

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<sup>39</sup>Laukanen, T. (2007) 'Internet versus Mobile Banking: Comparing Consumer Value Perceptions', *Business Process Management Journal*, Vol. 13 No. 6, pp. 788-797.

<sup>40</sup>Lichtenstein, S. and Williamson, K. (2006) 'Understanding Consumer Adoption of Internet Banking: An Interpretive Study in the Australian Banking Context', *Journal of Electronic Commerce Research*, Vol. 7, No. 2, pp.50-66.

<sup>41</sup>Akinci, S., Aksoy, S. and Atilgan, E. (2004), 'Adoption of Internet Banking Among Sophisticated Consumer Segments in an Advanced Developing Country', *International Journal of Bank Marketing*, Vol. 22, No. 3, pp. 212-232; Al-Somali, S.A., Gholami, R., Clegg, B. (2009), 'An investigation into the Acceptance of Online Banking in Saudi Arabia', *Technovation* 29, 130-141.

<sup>42</sup>Collins Nweze, 'Concerns over Rising Cases of e-fraud', *The Nation*, 17 June, 2014 p.21.

Majority of the rich, it said, think that avoiding debit cards is the best way to stay protected from e-frauds.<sup>43</sup>

Thus the alarming rate which corporate entities commit financial and accounting fraud today is unbelievable signaling a red alert to all and sundry. The number of companies and multinationals that were found window dressing their operating revenues and profits or applying income smoothing in reporting their operating performance is quite disappointing. These financial corporate frauds involved huge amounts of money and were geared towards maintaining or increasing the share price of the perpetrating companies in the stock exchange market.

The subject matter of corporate fraud and corporate governance leapt to global business limelight from relative obscurity after a string of collapses of high profile companies. Enron, the Houston, Texas based energy giant and WorldCom the telecom behemoth, shocked the business world with both the scale and age of their unethical and illegal operations. These organizations seemed to indicate only the tip of a dangerous iceberg. While corporate practices in the US companies came under attack, it appeared that the problem was far more widespread. Large and trusted companies from Parmalat in Italy to the multinational newspaper group Hollinger Inc., Adeptia Communications Company, Global Crossing Limited and Tyco International Limited, revealed significant and deep-rooted problems in their corporate governance. Even the prestigious New York Stock Exchange had to remove its director (Dick Grasso) amidst public outcry over excessive compensation.<sup>44</sup>

In developing economies, the banking sector among other sectors has also witnessed several cases of collapses, some of which include the Alpha Merchant Bank Ltd, Savannah Bank Plc, Societe Generale Bank Ltd, All States Trust Bank Plc, African International Bank Plc (all in Nigeria), The Continental Bank of Kenya Ltd, Capital Finance Ltd, Consolidated Bank of Kenya Ltd and Trust Bank of Kenya among others **are other examples**.<sup>45</sup>

According to Waymark,<sup>46</sup> studies in South Africa show that South African companies reported, as at October 2007, an average of 23 cases of corporate fraud during the preceding two years,

<sup>43</sup>ibid note 4.

<sup>44</sup>La Porta, R., Lopez-De-Silanes, F. and Shleifer, A., 'Corporate Ownership around the World' *Journal of Finance*, (1999) Vol. 54, pp.471-498.

<sup>45</sup>Akpan, N., 'Internal Control and Bank Fraud in Nigeria', (2007) *Economic Journal*, Vol. 95, pp.118-132.

<sup>46</sup>Waymark, Stuart, "Preventing corporate fraud: Know and avoid the myths", *Fraud Investigations & Dispute Services partner, Ernst & Young, 2007*.

with each organization losing an average of over R7.4 million in that period. However, despite the introduction of new and more stringent corporate governance regulations in that country, corporate fraud remains a significant concern for South African business.

In Nigeria, however, the most notable corporate fraud is the case of Cadbury Nigeria **Plc**. The company was found to be falsifying its financial and accounting reports by inflating its profit figure by millions of naira. It is suspected that other big companies in Nigeria and other African countries may be doing the same thing in order to influence their share prices and attract investments.<sup>47</sup>

Another similar case to Cadbury's is that of Afribank Nigeria Plc. Afribank's financial statement showed high profits amid accusation by its former Managing Director that the Board of Directors colluded with its auditors to cook the books. This came more than a month before Cadbury's.<sup>48</sup>

Corporate financial reporting is the medium through which companies communicate to the external society and the general public about their operational performance in terms of profitability, efficiency, and responsibility.<sup>49</sup> Corporate financial reports are a company's bill of health. Various stakeholders do take their respective decisions relative to a company based on the information supplied by it in its annual financial reports and accounts.

The objective of corporate financial report is to provide information about the financial strength, performance and changes in financial position of an enterprise that is useful to a wide range of users in making economic decisions.<sup>50</sup> The report should be understandable, relevant, reliable, and comparable. When the financial reports are distorted they will no longer portray the true and fair view of the financial performance and position of the reporting entity, which will go a long way in making the various stakeholders to take wrong decisions and even suffer damages. Where this happens, an accounting scandal or corporate fraud is deemed to have been committed.

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<sup>47</sup> Gege, O. D., 'Corporate Fraud in Nigeria', *The Guardian*, April 20, 2008, p. 19.

<sup>48</sup> Suleman, Tosin, 'Cadbury Nigeria Sued by Investors over Accounting', *The Times*, March 12 2007.

<sup>49</sup> Sanda, A.; Mikailu, A. S. and Garba, T. (2005), 'Corporate Governance Mechanisms and Firm Financial Performance in Nigeria', In AERC World Bank (2000), *Nigeria Financial Sector Reviews on Banking Institutions and their Supervision*, Vol. 4, No. 2, pp57-78.

<sup>50</sup> Benston, G. J., 'Required Disclosure and the Stock Market: An Evaluation of the Securities Act of 1934', *American Economic Review*, March, 1973.



Financial investigation, on the other hand, is the medium through which the financial activities of an entity are checked and examined in order to ascertain their true and fair status. It is a process that involves series of verifications and examinations aimed at unveiling both intentional and accidental financial misstatements; and other deliberate deceptions for the purpose of deriving benefits therefrom.

Disclosure, on its part connotes openness in company affairs at all levels. It refers to the volume of information to be made available to concerned and interested members of the public either through the regulatory authorities or by all persons involved before, during, or after the formation of the company on the one hand; and during the lifetime of the company, its dying times and after the death of the company on the other hand. Thus Disclosures of information by companies have over the years; become a very important tool of corporate governance. Its importance is anchored on the fact that issues of transparency and good governance have attained prominence in the effort by nations to increase their competitiveness in the global economic market. Disclosure has become more relevant in recent times in view of several high profile corporate scandals, unimaginable collapse of several industrial giants, business failure and particularly in Nigeria's banking sector; monumental level of corruption and insiders' abuse.<sup>51</sup> A security market will be efficient if information affecting the value of securities is readily available to investors. The ultimate aim of regulation therefore, is to prevent or minimize abuses, which might distort information and the value of securities, thereby having investors' confidence and the market's integrity marred. As succinctly put by Farrar<sup>52</sup>, disclosure of information is the best guarantee of fair dealing and the best antidote to mistrust. Its overriding aim is to afford an umbrella protection primarily to investors and to some degree, to creditors and those to whom the corporate form owes corporate responsibility<sup>53</sup>.

<sup>51</sup>Igwe Kingsley, 'Investment, Nigeria Capital Market and Corporate Governance Laws, Practice and Ethics' (2005) Corporate Governance, Disclosure and Transparency Law Development, Research, Publications & Consulting Ltd Vol 3 p.1 in Funmi Ogundare's, 'Sanusi: Corporate Governance, Key to Financial Stability' *ThisDay* (Lagos, 11 February 2010) p. 44.

<sup>52</sup>Farrar JH & Hannigan BH, *Farrar's Company law* (4th edn, London, Butterworth 1998) chapter 29, 463. See also Tosin Fodeke, '[Tightening the bolts in banks' corporate governance structure](#)', *The Guardian* (Lagos, 3 November 2010).

<sup>53</sup>The general principles of regulatory control centre around the following issues; Reporting: the Companies and Allied Matters Act Cap C20 Laws of the Federation of Nigeria, 2004 (hereinafter referred to as 'CAMA'), Investment and Securities Act 2007 (hereinafter referred to as 'ISA'), Bank and Other Financial Institutions Act (hereinafter referred to as 'BOFIA') et al; impose various reporting requirements. These may be general such as Directors'

This paper therefore attempts to carry out an analytical study, of the concept of financial investigation and disclosure and how they can be used to curtail or hinder the occurrence of corporate and accounting frauds in Nigeria. The paper provides discussions on the concepts of corporate fraud, financial investigation and on disclosure thereby bringing to bare some of the notable corporate frauds that happened in this new millennium. Part 2 examines the concept of Financial Investigation as a necessary panacea to checking corporate fraud and ultimately, corporate failures. The dimensions of and challenges of e-fraud to the corporation is also examined in part 2. In Part 3, the concept of corporate governance and corporate fraud are examined. In doing this, the paper analyses some Disclosure mechanisms at checking incidences of corporate fraud. In Part 4, the paper is concluded.

## 2. FINANCIAL INVESTIGATION AND CORPORATE FRAUD

In today's increasingly connected world, convenience, speed, technology adoption, and payment options allow people and businesses to conduct online financial activities with ease. Fraudsters are taking advantage of this trend, fleecing corporations of their funds and other corporate information. The existences of fraud in the administration of corporate entities make it imperative for it to be investigated so that its causes and effects could be established and guarded against future occurrences. Investigation simply means an examination or inquiry into something, especially a detailed one that is undertaken officially. The aim of any investigation is to discover the fact or truth.

Financial investigation, however, implies the process of discovering the fact about financial misconduct through a detailed verification and examination exercises so that the causes, effects

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Reports under s 342 of CAMA or Financial Statements under s 345 of CAMA and Auditors Report and filing with the Commission under s 345 (3) of CAMA. Reporting could be to shareholders in a general meeting or to the regulators or both. See also Solomon, Lewis D Bauman, Jeffrey D et al, *Corporation Law and Policy Materials and Problems* (4th edn, St Paul, MINN, 1990) 281. They submitted that the only standard which must be met when registering securities is adequate and accurate disclosure of required material facts concerning the company and the securities it proposes to sell.

and perpetrators could be ascertained.<sup>54</sup> Financial investigations are undertaken by designated professionals including the accountants, auditors, police, or other government agents.

Corporate financial activities are usually undertaken by the professional accountants who have the requisite knowledge and legal qualification to act as such. The investigation of fraud within a corporate entity requires a specialized skills and manner of approach, hence the introduction of forensic accounting.<sup>55</sup> Forensic accounting is the specialty practice area of accountancy that describes engagements that result from actual or anticipated disputes or litigation. Forensic means suitable for use in a court of law, and it is to that standard and potential outcome that forensic accountants generally have to work.

Forensic accountants, also referred to as forensic auditors or investigative auditors, often have to give expert evidence at the eventual trial. All of the larger accounting firms, as well as many medium-sized and boutique firms have specialist forensic accounting departments. In the words of Crumbly,<sup>56</sup> the value of forensic accounting is not limited to determining the extent of business fraud; but can help business owners avoid bad decisions in mergers and acquisitions and help attorneys distinguish between business valuation and financial investigation.

Investors buy stocks and bonds to make money; therefore they generally invest in companies that appear to be successful.<sup>57</sup> Corporate fraud occurs when companies mislead the public and analysts by manipulating information to appear strong and profitable when in reality they are not.

### 2.01 APPROACHES TO FINANCIAL INVESTIGATION

Van Duyne and Levy<sup>58</sup> identifies three-step approach to financial investigation as follows:

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<sup>54</sup>Van Duyne, P. C. and Levy, M., 'Criminal Financial Investigation: A Strategy and Tactical Approach in a European Dimension'. United Kingdom: Wiley (1999). Available at [www.wikipedia](http://www.wikipedia) the free encyclopedia. Accessed 10 April 2014.

<sup>55</sup> Peter, J. P., *Children of the Night*, Southampton: Xlibris (2007.)

<sup>56</sup>Crumbly, D. L.; Lester, E. H.; and Smith, G. S., *Forensic and Investigative Accounting*, (2005) London: CCH Group.

<sup>57</sup>Benston, G. J., 'Contemporary Issues in Financial Reporting: A User-Oriented Approach', *The International Journal of Accounting*, February 2006.

<sup>58</sup> Van Duyne and Levy, *ibid* note 16.

- a) secure and collect all tangible and oral evidence in a manner consistent with the rules of evidence to ensure admissibility,
- b) gather additional evidence through interviews,
- c) analyze the evidence, and
- d) present the evidence in an understandable manner.

These stages normally involve using the technology of computer forensic analysis, data analytics and conducting interviews.

a) ***Securing and Collecting the Evidence: Computer Forensics:***

The most successful method of detecting improper activities at corporations where fraud is suspected is through the use of technology. Nearly all of a company's information is created and managed electronically, yet typically only a third of that information is committed to paper. The majority of investigations, therefore, require careful searches of electronic information rather than following a paper trail.

Computer forensics allows fraud investigators to uncover more of the facts, support otherwise unsubstantiated information, confirms or refutes allegations, and analyzes competing theories in relation to those facts. It involves identifying, collecting, analyzing large numbers of data. But without the correct presentation or codification of data, it may not be admissible in a legal proceeding.

Typically, the forensic group would search and analyze:

- i) Emails
- ii) Documents and files that may be hidden, password protected, or encrypted
- iii) Files that have been generated from the operating system (i.e., enhanced metafiles)
- iv) Databases of all user input and activity
- v) Recently opened, accessed, created or deleted files, and
- vi) Online activities, including Internet banking transactions

However, electronic evidence is not limited just to laptop and network computers at the workplace. Offsite computer files, servers, and even the head accountant's BlackBerry can prove valuable in an investigation.

b) ***Gathering Additional Evidence Through Interviews:***

Successful fraud investigations require interviewing potential witnesses, people with information about a particular infraction, and in some cases, speaking with the suspected perpetrators of fraud themselves. The professional interviewer, therefore, has a detailed and organized plan in place.

Knowing this will help you understand how investigators acquire oral evidence. The objective of an interview in a fraud situation is to gather facts related to potential motives on the part of the perpetrator, and to verify opportunities presented to the perpetrator for committing a fraud.

The interviewer carefully organizes the structure of the interview, including its location, attendees, and the series of questions that will be asked. Questions are designed so that they draw out the best possible information from the interviewee. For instance: What will be gained from the interview? What should be known about this individual's activities? Is the interviewee a suspect or just a lead? As well, the interviewer often takes into account body language and certain words and phrases which could indicate deception.

c) *Analyze the Evidence:*

The evidence so collected in (a) and (b) above are adequately collated and analyzed so that appropriate conclusion can be obtained.

d) *Present the Evidence in an Understandable Manner:*

The evidences discovered from the investigation are presented in the most appropriate manner and using such presentation format that is most suitable.

According to Crumbley et al,<sup>59</sup> forensic accountants utilize an understanding of business information and financial reporting systems, accounting and auditing standards and procedures, evidence gathering and investigative techniques, and litigation processes and procedures to perform their work. Forensic accountants are also increasingly playing more proactive risk reduction roles by designing and performing extended procedures as part of the statutory audit, acting as advisers to audit committees, fraud deterrence engagements, and assisting in investment analyst research.

## 2.02 THE CONCEPT OF CORPORATE FRAUD

According to Encyclopedia, fraud in the broadest sense is a deception made for personal gain or to damage another individual. The specific legal definition varies by legal jurisdiction. Fraud is a crime, and is also a civil law violation. Many hoaxes are fraudulent, although those not made for personal gain are not technically frauds. Defrauding people of money is presumably the most common type of fraud. Podgor<sup>60</sup> said in criminal law, fraud is the crime or **offence** of

<sup>59</sup> Crumbley, D. L.; Lester, E. H.; and Smith, G. S., *ibid* note 13.

<sup>60</sup> Podgor, E. S., 'Criminal Fraud', *American Law Review*, (1999) Vol. 48, No. 4, pp22-31.



deliberately deceiving another in order to damage him/her usually to obtain property or services unjustly. Fraud can be accomplished through the aid of forged objects.

Fraud takes on many forms. The Canadian Institute of Chartered Accountants defines fraud as ‘an intentional act, by one or more individuals among management, other employees, those charged with governance or third parties, involving the use of deception to obtain an unjust or illegal advantage.’ These activities can include misappropriation of cash or inventory, fraudulent financial reporting and money laundering.

Fraud, in addition to being a criminal act, is also a type of civil law violation known as a Tort. A Tort is a civil wrong for which the law provides a remedy. A civil fraud typically involves the act of intentionally making a false representation of a material fact, with the intent to deceive, which is reasonably relied upon by another person to that person's detriment. A ‘false representation’ can take many forms, such as:

- a) A false statement of fact, known to be false at the time it was made;
- b) A statement of fact with no reasonable basis to make that statement;
- c) A promise of future performance made with an intent, at the time the promise was made, not to perform as promised;
- d) A statement of opinion based on a false statement of fact;
- e) A statement of opinion that the maker knows to be false; or
- f) An expression of opinion that is false, made by one claiming or implying to have special knowledge of the subject matter of the opinion. ‘Special knowledge’ in this case means knowledge or information superior to that possessed by the other party, and to which the other party did not have equal access.

Fraud for profit involves industry professionals. There are generally multiple loan transactions with several financial institutions involved. These frauds include numerous gross misrepresentations including overstating income, assets, loan collateral, the length of employment or reporting fictitious employment, etc. it could also be in form of understating operating expenses by corporate entities.

Corporate fraud (also known as Accounting scandals, or corporate accounting scandals) are political and business scandals which arise with the disclosure of misdeeds by trusted executives of large public companies.<sup>61</sup> Such misdeeds typically involve complex methods for misusing or misdirecting funds, overstating revenues, understating expenses, overstating the value of

<sup>61</sup> John, R. E. and Rebecca Smith, *‘24 Days: How Two Wall Street Journal Reporters Uncovered the Lies that Destroyed Faith in Corporate America or Infectious Greed’*, (2004) Washington: HarperInformation.

corporate assets or underreporting the existence of liabilities, sometimes with the cooperation of officials in other corporations or affiliates.

In public companies, this type of ‘creative accounting’, do amount to fraud and investigations are typically launched by government regulatory agencies, such as (in Nigeria for example) the Securities and Exchange Commission (SEC), the Institute of Chartered Accountants of Nigeria (ICAN), etc. Moreover, the accounting scandals that rocked the corporate world have been blamed on a range of factors, including unethical behavior among executives, incentives to manipulate financial information for personal gain and lack of independence among monitors.<sup>62</sup>

### 2.03 SOME EXAMPLES OF GLOBAL CORPORATE FRAUD

As contained in Microsoft Encarta Premium,<sup>63</sup> the summary of some notable corporate frauds and accounting scandals that occurred in this new millennium is provided below:

#### 2.04 Worldcom Inc.

The accounting fraud uncovered at Worldcom in 2001/2002 proved to be the largest in U. S. history. The company overstated its earnings by \$11 billion, and its subsequent bankruptcy cost investors an estimated \$200 billion. The U. S. Department of Justice brought criminal charges against Worldcom’s former chief financial officer, and the SEC of the United States filed civil lawsuits against four former Worldcom executives.

#### 2.05 Enron

In April, 2001 Enron revealed that it was owed more than \$500 million by bankrupt California energy companies. In August, its **Chief Executive Officer**, Jeffrey Skilling, resigned, a sign that all was not well in the company. On October 16, Enron reported a third-quarter loss of \$618 million. The next day Enron revealed that due to an accounting error it had overstated the company’s net worth by more than \$1 billion. The two reports caused investors to lose confidence in Enron and its stock price fell.

<sup>62</sup>Grant, R. M. and Visconti, M., *The Strategic Background to Corporate Accounting Scandals*, (2006) United Kingdom: Elsevier Ltd.

<sup>63</sup>Microsoft Encarta Premium, ‘Corporate Fraud and Accounting Scandals’. United States: Microsoft Inc. 2006.

### 2.06 American International Group (AIG)

In 2005, was under investigation for accounting fraud. The company already lost over 45 billion US dollars worth of market capitalization because of the scandal. This was the fastest decrease since the Worldcom and Enron scandals. Investigations also discovered over a billion US dollars worth of errors in accounting transactions. Future outcome for the company is still pending.

### 2.07 Cadbury Nigeria Plc

The most notable corporate fraud or accounting scandal in Nigeria involved Cadbury Nigeria Plc, one of the biggest food and beverages manufacturer in Nigeria. It was discovered that the profit reported by the company for some years were overstated by N1 billion to N2 billion via creative accounting. Cadbury, which is one of Nigeria's leading companies, was fined for publishing misleading accounts for a number of years in order to boost its profits. The suspicion, however, is that it is not the only company engaged in this practice. The case is believed to be the first of its kind in Nigeria, the country that is trying to shed its image of corruption to attract foreign investment. The Nigerian **Chief Executive**, Bunmi Oni, who was named by PricewaterhouseCoopers, the company's auditors, as Nigeria's 'most respected CEO' at that time, and the **Finance Director**, Ayo Akadiri, were 'relieved of their positions.'

In 2002, a wave of separate but often related accounting scandals became known to the public in the U.S. All of the leading public accounting firms, for example Arthur Andersen, Deloitte & Touche, Ernst and Young, KPMG, PricewaterhouseCoopers, and others have admitted to or have been charged with negligence in the execution of their duty as auditors to identify and prevent the publication of falsified financial reports by their corporate clients which had the effect of giving a misleading impression of their client companies' financial status.<sup>64</sup> In several cases, the monetary amounts of the fraud involved are in the billions of US Dollars.

The audit firms and the companies ensnared by accounting scandals, which mostly occurred in the third millennium, are listed below:

- a) Deloitte & Touche: Adelphia, AES, Duke Energy, El Paso, Merrill Lynch, Reliant Energy, Rite Aid, Parmalat.
- b) Ernst & Young: AOL Time Warner, Dollar General, PNC Bank, Cendant, HealthSouth.
- c) KPMG: Citigroup, Computer Associates, ImClone, Lernout and Hauspie, New Century, Peregrine, Xerox, Siemens AG, Banco National S. A. (Brazil), BMW Group.

<sup>64</sup> Zabihollah, Rezaee, *Financial Statement Fraud: Prevention and Detection*, (2002), New York: Wiley.

- d) PricewaterhouseCoopers: Bristol Myers, HPL, JP Morgan Chase, Kmart, Lucent, MicroStrategy, Network Associates, NKFS, Tyco, Cadbury Nigeria Plc.

#### 2.08 DIMENSION OF FRAUD IN NIGERIAN COMPANIES

Nigeria as a nation is deeply soaked in, and characterized by fraud and its related corrupt practices. These have had severe negative consequences on the country and its global image. Fraud and related ills have caused instability in the economy resulting to a high mortality rate of business organizations and the consequent losses of revenues. Business practices in Nigeria have been equally marred by incredible waves of fraud, involving misappropriation of funds, cheque forgeries, funds diversion, etc. As in the society at large, frauds has become one of the most intractable problems of modern day business in Nigeria. While public concern is growing by the day and management vigilance improving with the aid of computerization, it is on record that millions of naira are lost to fraud and forgeries which Stanley<sup>65</sup> had argued results in huge financial losses to business organizations and their customers, depletion of shareholders' funds and capital base as well as loss of confidence in businesses.

It cannot in anyway be considered an exaggeration to posit that the worst enemy of our business both in the past and present is fraud. Mismanagement may have put our country's economy in its present predicament. However, it cannot be contested that the high incidence of fraud has played even greater role in this respect. Over the years only the banking sub-sector among others in the Nigerian economy has received some attention on fraud related matters. Hence, Nwachukwu<sup>66</sup> wrote that more money is stolen in or through banks by means of fraud committed with pen than through other means. Just as the banks are hit, so also are other business organizations. Fraud may take the form of theft of inventory assets, misuse of expense account, secret commission and bribery, false invoicing, electronic and telecommunication fraud, unauthorized use of information, cheque forgery, false financial statements, and so on, but whichever form it takes, the fundamental point is that the business organization that falls victim to fraudulent acts suffers and bears the brunt. Fraud has become a cost of doing business, a crime of the millennium, which can affect anyone, anytime, anywhere, and it respects no boundaries. To make matters worse, the expansion of global financial markets has offered international criminals many more opportunities that has resulted in an increased number of reported cases of fraud globally.<sup>67</sup>

<sup>65</sup> Stanley B. (1994) *International Fraud* McGraw – Hill, New York.

<sup>66</sup> Nwachukwu C.C (1995), *Modern Nigerian Business Law*. African Educational Service Owerri, Nigeria.

<sup>67</sup> Stanley B. (1994) *International Fraud* McGraw – Hill, New York.

According to Robertson,<sup>68</sup> fraud is any deception practiced to cheat or deceive another to his own detriment or to the detriment of any other, or to cause another loss or injury, while the perpetrator has a clear knowledge of his deliberate falsehood, deceptions or advantage over the innocent and unsuspecting victim. Similarly, Stanley<sup>69</sup> defined fraud as consisting of knowingly making material misrepresentations of facts, with the intent of inducing someone to believe the falsehood and act upon it, thus suffering a loss or damage. This definition encompasses all the varieties by which people can lie, cheat, steal and dupe others. To this end, the dimensions and incidences of fraud in Nigeria are legion and concerted efforts must be made to tackle them.

### 3. CORPORATE GOVERNANCE, CORPORATE FRAUD AND DISCLOSURE

Corporate governance refers to the processes and structures by which the business and affairs of an institution are directed and managed in order to improve long-term shareholder value by enhancing corporate performance and accountability, while taking into account the interest of other stakeholders. Corporate governance is about building credibility, ensuring transparency and accountability as well as maintaining an effective channel of information disclosure that would foster good corporate performance. Corporate Governance therefore is the processes and systems by which a company is governed which ensure appropriate checks and balances as well as the manner companies and enterprises are managed efficiently.

According to Crawford,<sup>70</sup> Corporate governance is the set of process, customs, policies, laws and institutions affecting the way a corporation is directed, administered or controlled. Corporate governance also includes the relationships among the many stakeholders involved and the goals for which the corporation is governed. The principal stakeholders are the shareholders, management and the Board of Directors (BOD). Other stakeholders include employees, suppliers, customers, banks and other lenders, regulators, the environment and the community at large. An important theme of corporate governance is to ensure the accountability of certain individuals in an organization through mechanisms that try to reduce or eliminate the principal-agent problem.

Corporate Governance for quite some time was misconstrued as confining to only corporate management. However, it is something much broader for it must include a fair, efficient and

<sup>68</sup> Robertson J. C. (1976) *Fraud Awareness Auditing*, Richard D. Irwin Chicago.

<sup>69</sup> Ibid note 29.

<sup>70</sup> Crawford, C. J., *Compliance & Conviction: The Evolution of Enlightened Corporate Governance*, (2007), Santa Clara, California: XCEO.



transparent administration to meet certain well defined objectives.<sup>71</sup> Corporate governance also must go beyond law. The quantity, quality and frequency of financial and managerial disclosure, the degree and extent to which the Board of Director exercise their trustee responsibilities and the commitment to run transparent organization. These should evolve due to interplay of many factors and the role played by more progressive elements within the corporate sector.

Key elements of good corporate governance principles include honesty, trust and integrity, openness, performance orientation, responsibility and accountability, mutual respect, and commitment to the organization.<sup>72</sup> Of importance is how directors and management develop a model of governance that aligns the values of the corporate participants and then evaluate this model periodically for its effectiveness. In particular, senior executives should conduct themselves honestly and ethically, especially concerning actual or apparent conflicts of interest, and disclosure in financial reports. The positive effect of good corporate governance on different stakeholders ultimately is a strengthened economy, and hence good corporate governance is a tool for socio-economic development.<sup>73</sup>

For example, following the dawn of privatization in Nigeria, there was an upsurge in the number of shareholders and a change in the nature of shareholding from concentrated to dispersed ownership. The implication of this is that shareholders of the privatized companies are not only scattered all over Nigeria but held insignificant shares each to be able to monitor the performance of their directors. Consequently, the gap between ownership and control is widened beyond expectation. Corporate law is therefore not adequate to meet the challenges by dispersed ownership leading to renewed interest of stakeholders, investors, creditors and governments all over the world to search for effective corporate governance and management. Share ownership is now dispersed in Nigeria and the gap between shareholders and directors is getting wider. Shareholders are passive and have been reduced to mere supplier of capital.

Thus, the governance of corporation is now as important in the world economy as the governance of countries.<sup>74</sup> Developments at the global level have necessitated the need for corporations and their stakeholders to imbibe the full complements of corporate accountability

<sup>71</sup> Monks, R. A. G. and Minow, Nell, *Corporate Governance*, (2004), Dundee: Blackwell.

<sup>72</sup> Monks, R. A. G. and Minow, Nell, *Power and Accountability*, (1991), Dundee: Harper Business.

<sup>73</sup> Lee, T. A., *Financial Reporting and Corporate Governance*, (2006), Chichester, England: John Wiley & Sons.

<sup>74</sup> See James Wolfesohn, 'The World Bank', available at <http://www.worldbank.org/html/fpd/private/sector/eg/aboutus.htm>.> accessed 02 April 2014.

and efficiency. Similarly, globalization of economics on the world scale has brought with it the need to develop international standards of best practices for the benefit of investors, and all the stakeholders, a development necessitated by corporate failures which affected America, Asia, Europe and Africa and creating in the process economic instability. In the case of Nigeria, the commercial and banking terrain has been groping and grasping for breath and survival since the 80s and 90s. Even in this millennium, the ghost of financial distress is still seen haunting the financial service sector leading to the great Soludo<sup>75</sup> and Sanusi<sup>76</sup> era of banking reforms.<sup>77</sup>

There is an inseparable link between corporate governance and management and investor confidence. No investor will consider investing in an enterprise devoid of transparency and accountability. While it is true that in the past few years, the Nigerian commercial terrain has witnessed vigorous legislative activities, particularly in the area of Company Law to facilitate business activities in the country and ensure that the tripartite interests of the investing public, the general public itself as well as that of the nation were protected, recent experiences have shown that deep rooted lack of corporate governance and management efficiency have continue to bug down the growth of corporations in Nigeria<sup>78</sup>

<sup>75</sup>Anthony O. Egbase & Associates, 'Corporate Lawyer's Solution amidst Soludo Solution (ss): The Solution as Part of the Corporate Lawyer's Job'. <http://www.nigerianlawguru.com/articles/company%20law/MERGERS%20&%20ACQUISITIONS.htm> accessed 27 March 2014.

<sup>76</sup>D. Alford, 'Nigerian Banking Reform: Recent Actions and Future Prospects', 25 *Journal of Int. Banking & L. Reg.* 337 (2010). L. Sanusi, 'Growth Prospects for the Nigerian Economy', 13, November 26, 2010. Available at [http://www.cbn.gov.ng/out/speeches/2010/gov\\_convocation\\_lectureigbinedionuniversity](http://www.cbn.gov.ng/out/speeches/2010/gov_convocation_lectureigbinedionuniversity) accessed 03 April 2014.

<sup>77</sup>*Ibid* at n 28. See also Mamman H., 'Banks Management Issue and Restoring the Health of Nigerian Banks through Improving the Quality of Management/Employees', *N.D.I.C. Quarterly Vol. 4 No. 4* at p. 57. 3 Nigerian Deposit Insurance Corporation (*N.D.I.C.*) *Yearly Report 1999*; Chigbo, Ejiofor, 'Liquidation Banks in Nigeria', in *Body and Soul Weekend Paper Vol. 1 No. 9* dated 31st October 1999 at p. 12 and 13. 4 Nigerian Deposit Insurance Corporation (*N.D.I.C.*) *Yearly Reports 1998*, at p. 3. 3.

<sup>78</sup>J. Ekeng, 'The Paradox of Bank Ratings'. Available at [www.m2weekly.com/feature/the-paradox-of-bankratings/](http://www.m2weekly.com/feature/the-paradox-of-bankratings/) accessed 30 March 2014. Shortly after the 2004 consolidation exercise, there was an unusual rush by Nigerian banks for awards and other forms of international recognition. No bank wanted to be outdone in the mad rush. Then the rating agencies got involved. Every bank was adjudged to be in great condition. But the ongoing shake-up in the industry has proved that the whole exercise was not a true reflection of reality. Even with recent developments in the banking industry, the rating agencies are busy turning out what appear to be curious reports. See also Financial Nigeria.com 'Oceanic Wins 2007 Bank of The Year Award, Daily Independence (November 30,

In most organizations, corporate governance and responsibility have been sacrificed at the altar of nepotism and corruption. In Nigeria, according to Ajayi,<sup>79</sup> it is no news to declare that more than 60% of the current banks in Nigeria today are padded up and their financial statements heavily suspect. Many of them are not worth placing funds with and their leaderships continue to carry on business as usual. The era of forex magic and round tripping may not be over yet at these banks.

At this juncture, it must be **emphasised** that financial reporting is a crucial element necessary for the corporate governance system to function effectively. Accountants and auditors are the primary providers of information to capital market participants. The directors of the company should be entitled to expect that management prepare the financial information in compliance with statutory and ethical obligations, and rely on auditors' competence.<sup>80</sup>

Current accounting practice allows a degree of choice of method in determining the method of measurement, criteria for recognition, and even the definition of the accounting entity. The exercise of this choice to improve apparent performance (popularly known as creative accounting) imposes extra information costs on users. In the extreme, it can involve non-disclosure of information. One area of concern is whether the accounting firm acts as both the independent auditor and management consultant to the firm they are auditing. This may result in a conflict of interest which places the integrity of financial reports in doubt due to client pressure to appease management.

The fraud committed in many corporate entities suggested that corporate governance in those entities is not living up to the expectation. The Directors have failed and that is why in each of the corporate accounting scandals they are greatly held responsible. Therefore, good corporate governance should be the one that is fair to all the various stakeholders in terms of corporate general administration and reporting the actual operating performance and position of the entity as at a particular date.

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2007). The banks rescued in the fall of 2009 are Afribank, Bank PHB, Oceanic Bank, Union Bank, Intercontinental Bank, Finbank, Equatorial Trust Bank and Spring Bank.

<sup>79</sup> Ajayi, Babs, 'Cadbury: Nigeria's Enron', *The Times*, 14 December 2006.

<sup>80</sup> Dignam, A. and Lowry, J., 'For a Good Overview of the Different Theoretical Perspectives on Corporate Governance', *Company Law*. London: Oxford University Press.

Comer<sup>81</sup> concludes that board composition and the structure of a board's oversight committees are significantly correlated with the incidence of corporate fraud. He added that as the number of independent outside directors increased on a board and in the board's audit and compensation committees, the likelihood of corporate wrongdoing decreased. However, Grant and Visconti<sup>82</sup> argued that as more rigorous requirements for company reporting result in Board members and executives redirecting their efforts from strategy to compliance, recent regulatory measures may do little to enhance effective corporate governance.

As earlier discussed, Disclosure connotes openness in company affairs at all levels. It refers to the volume of information to be made available to concerned and interested members of the public either through the regulatory authorities or by all persons involved before, during, or after the formation of the company on the one hand; and during the lifetime of the company, its dying times and after the death of the company on the other hand. Disclosure of information by companies has, over the years, become a very important tool of corporate governance. Its importance is anchored on the fact that issues of transparency and good governance have attained prominence in the effort by nations to increase their competitiveness in the global economic market. Disclosure has become more relevant in recent times in view of several high profile corporate scandals, unimaginable collapse of several industrial giants, business failure and particularly in Nigeria; monumental level of corruption and insiders' abuse as recently discovered by the Central Bank of Nigeria in the Nigerian banking sector.<sup>83</sup> A security market will be efficient if information affecting the value of securities is readily available to investors. The ultimate aim of regulation therefore, is to prevent or minimize abuses, which might distort information and the value of securities thereby having investor's confidence and the market's

<sup>81</sup> Comer, M. J., *Corporate Fraud*. (2001), New York: Network Security Management Limited.

<sup>82</sup> Grant, R. M. and Visconti, M, *ibid* note 24.

<sup>83</sup> Igwe Kingsley, 'Investment, Nigeria Capital Market **and** Corporate Governance Laws, Practice & Ethics' (2005) Corporate Governance, Disclosure and Transparency Law Development, Research, Publications & Consulting Ltd Vol 3 p.1 in Funmi Ogundare's, 'Sanusi: Corporate Governance, Key to Financial Stability' *ThisDay* (Lagos, 11February 2010). The Governor of Central Bank of Nigeria, Mallam, Sanusi Lamido Sanusi called on captains of industries to find lasting solutions to the lingering problem of weak corporate governance confronting the country's financial system. He noted that the Central Bank of Nigeria in collaboration with other regulatory agencies is aggressively pursuing measures to stem unethical practices in financial institutions in Nigeria.

integrity marred. As succinctly put by Farrar<sup>84</sup>, the disclosure of information is the best guarantee of fair dealing and the best antidote to mistrust. Its overriding aim is to afford an umbrella protection primarily to investors and to some degree the creditors and those to whom the corporate form owes corporate responsibility<sup>85</sup>. Arguing further, Gower<sup>86</sup> said:

England has pinned its faith on a philosophy of disclosure rather than of supervision. Our rules are based upon the assumption, which indeed underlies the whole of our company law that the best protection of the public lies in publicity. It is assumed that if one gives the investor full information about the company's affairs he will avail himself of it and make an intelligent appraisal of the worth of the security offered.

For example to ensure transparency in the operations of banks in Nigeria,<sup>87</sup> the Central Bank of Nigeria has recently adopted the practice of publishing on its website the total interest rates and

<sup>84</sup>Farrar JH & Hannigan BH, *Farrar's Company law* (4th edn, London, Butterworths 1998) 463. See also Tosin Fodeke, ['Tightening the bolts in banks' corporate governance structure](#) *The Guardian* (Lagos, 03 November 2010).

<sup>85</sup>The general principles of regulatory control centre around the following issues; Reporting: Company and Allied Matters Act 1990 (hereinafter referred to as 'CAMA'), Investment and Securities Act 2007 (hereinafter referred to as 'ISA'), Bank and Other Financial Institutions Act (hereinafter referred to as 'BOFIA') etc; impose various reporting requirements. These may be general such as Directors' Reports under s 342 of CAMA or Financial Statements under s 345 of CAMA and Auditors Report and filing with the Commission under s 345 (3) of CAMA. Reporting could be to shareholders in a general meeting or to the regulators or both. S 24 of BOFIA contains duty of director to ensure that proper books of accounts are kept on all transactions necessary to explain such transactions and give a true and fair view of the state of affairs of the bank. Disclosure: Various laws require disclosure by directors of certain information; conflict of interest situations, interests in transactions, loans to directors, related party transactions etc. S 18 of BOFIA provides that no manager or any other officer of a bank shall (a) in any manner whatsoever, whether directly or indirectly have personal interest in any advance, loan or credit facility; and if he has any such personal interest, he shall declare the nature of his interest to the bank. Regulatory Responsibilities: Prohibition/exemption- Certain conduct may be prohibited (eg insider dealings in securities, ISA s 111. See also Solomon, Lewis D Bauman, Jeffrey D et al, *Corporation Law and Policy Materials and Problems* (4th edn, St. Paul, MINN, 1990) 281. They submitted that the only standard which must be met when registering securities is adequate and accurate disclosure of required material facts concerning the company and the securities it proposes to sell.

<sup>86</sup>Gower LCB, *Principles of Modern Company Law* (4th edn, London: Stevens & Sons Ltd, 1979).

<sup>87</sup>According to Bolodeoku Ige, 'Corporate Governance: The Law's Response to Agency Cost In Nigeria' (2007) *Brooklyn Journal of International Law* volume 32 Number 2; the Code of Corporate Governance Practices issued by the Central Bank of Nigeria known as Code of Corporate Governance for Banks in Nigeria Post Consolidation (2006) 1.7, unlike most corporate governance code is mandatory. The facts that banks must comply with it and include



charges obtainable in each of the financial institutions in Nigeria. The publication of the rates and charges for January 2009 was sequel to allegations by the banking public of hidden charges by Nigerian banks. These publications as against the past ones contain the lending rate of every bank, including all charges, fees and commissions.

There are four main themes underlying disclosure of information in company law. The first theme is that the assumption behind many disclosure requirements is that behaviour can be influenced merely by requiring it to be disclosed without the need of negative prohibition or positive regulation.

According to Gower:

If those who invest in, and manage companies know that their activities will be subjected to public security, their behaviour will be modified to avoid public disapproval.<sup>88</sup>

The second theme is that apart from making full and frank disclosure to the creditors and shareholders; pieces of information that are more obviously in the public interest must also be disclosed by the companies because of the externality companies generate. Hence disclosure can be viewed from this background as the recognition of new interest, besides those of investors, in the way the company operates.

The third underlying theme is that company must make disclosure to the shareholders by the registration of its audited balance sheet and financial information and at registration at the Companies House.<sup>89</sup> The purpose of disclosure to the shareholders is to promote efficient management by requiring the management to account for their stewardship of the company. In

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the Code's compliance status report in the audited financial statements underscores the banks' responsibility to actively take steps that policymakers believe could prove useful in dealing with agency costs. The Code among other provisions requires banks to establish 'whistle-blowing' procedure that encourages (including assurance of confidentiality) all stakeholders to report any unethical activity or breach of the corporate governance code using, among others, a special email or hotline to both the bank and the CBN.

<sup>88</sup>Gower LCB, fn 4 at page 463. The Learned Authors cited the example of the philosophy behind the provision introduced in the United Kingdom in 1967 that companies must keep a copy of any written service contract or if not in writing a written memorandum of its terms available for inspection by members of the company – the philosophy is that if the members could see how the Directors provided for themselves they might be more restrained in their generosity.

<sup>89</sup>Farrar JH & Hannigan BH, fn 2 page 464. In Nigeria, the Companies House is the Corporate Affairs Commission established under the Companies and Allied Matters Act, 1990.

this respect, disclosure is just one of a number of techniques used by company law to ensure the accountability of the management to the shareholders.

This paper argues that the requirement of registration of companies at the Corporate Affairs Commission, (as it is known in Nigeria) is in itself a justification for disclosure in the public interest. Therefore, disclosure is all about openness and transparency in the affairs of the corporate form. Many authors have referred to the word ‘disclosure’ in a number of ways which captures its very essence.<sup>90</sup> The critical issue about disclosure is that it is the price to be paid by shareholders in return for the conferring of limited liability which insulates their personal fortunes from the reach of the company’s creditors unless the shareholders have been persuaded to give personal guarantees.

This paper opines that the disclosure regime in Nigeria is inadequate and had failed to provide adequate information needed to safeguard the corporation, corporate investors and the public. The disclosure mechanisms contained in the Company and Allied Matters Act 1990 and the Securities and Exchange Commission Act do not carry with them efficacious sanctions and punitive measures strong enough to deter those who man corporations in Nigeria from hoarding and trading such information against the corporate interest and the investing public.

The paper suggests reform of the Nigerian corporate laws to match the rising cases and challenges of corporate fraud, failures and insiders’ abuses with a view to boosting investors’ confidence in corporation.

### *3.01 THE USE OF FINANCIAL INVESTIGATION AND DISCLOSURE MECHANISM TO CURTAIL CORPORATE FRAUD*

An investigation is usually mounted after the incidence has occurred. However, it can serve as a deterrent measure to the perpetrators especially where severe punishments are integrated. In the corporate environment, companies try as much as possible to show to the public that they are successful and profitable in order to attract the right type and quantity of investment; and to ensure a steady movement in their share prices. That is why many of them resulted in creative accounting and income smoothening so that their financial performance and position are beautified.

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<sup>90</sup>Brenda Hannigan, *Company Law* (2nd edn, London, Oxford University Press, 2008) 500, refers to Disclosure as ‘Transparency Obligation’.

In Nigeria, auditors are usually involved in corporate financial investigations including those relating to fraud. In most of the African countries, forensic accounting is not viewed as a separate technique required for a thorough financial investigation. Once one qualifies as a chartered accountant and possesses the license to practice, he/she is adequately qualified to carry out financial investigations for the clients. The developments in the area of fraud investigation is yet to reach our environment in full and therefore heavy reliance is placed on the auditors as far as financial investigations are concerned.

South Africa, Italy and Japan have recently beefed up their corporate governance codes to strengthen shareholders' oversight of corporate boards, pay practices. Financial investigation was used in these countries to discover the genesis and procedures of corporate fraud and other accounting scandals so that best strategies would be employed in curtailing and preventing the menace.

In the words of Hatice, et al,<sup>91</sup> there are a number of systems available to help businesses protect themselves from corporate fraud, but being aware of the problem is the first step to closing the net on the criminals. His study reveals three commonly used types of corporate fraud mostly having direct bearing to the composition of the Board of Directors; and proffered strategies through which businesses can take some simple precautions to keep the fraudsters at bay. He, however, concluded that financial investigation could serve as a tool for unveiling the nature and attributes of such corporate frauds.

However, for financial investigation to be effective in checkmating and guarding against corporate fraud there is the necessity to apply it both as a proactive and reactive mechanism. The United States government and its investigation agencies failed in their roles to provide adequate protection to investors and their investments. The paper suggests that Wall Street Companies should be subjected to regular financial checks/investigations rather than waiting for an incidence to happen before mounting the investigation. This clearly reflects that even the largest economies in the world fail to take advantage of financial investigation as a proactive mechanism against corporate frauds.

<sup>91</sup>Hatice, Uzun; Samuel, H. S. and Raj, Varma, 'Board Composition and Corporate Fraud', *Financial Analysts Journal*, (2004), Vol. 60, No. 3, pp 33-43, May/June.

In North Africa, the fight against corporate fraud was approached mostly under the introduction of new reforms on the area of corporate governance. Sourial<sup>92</sup> recommends that, in North Africa, traditions and cultures should be allowed implicitly to choose their acquaintance with the number of reforms measures that yield to better corporate governance practices. He further stated that shocking the system with new wave of ideas might create resistance to reforms and deterioration.

#### 4. CONCLUSION AND RECOMMENDATIONS

The issue of corporate fraud is a global issue. Many companies all over the world have been found in one way or the other adopting illegal measures towards making their financial statements attractive and beautiful. This paper has collected and collated background information on some of these incidences and the reasons behind them. The concept of financial investigation and disclosure were looked into as defense mechanisms for guarding against corporate fraud. Also, **detailed** discussions were provided on the concepts of corporate fraud, financial investigation and corporate governance. The paper concludes that though investigations are usually mounted after the incidence had happened, it could be a useful tool in curtailing the occurrence of corporate fraud and can reduce or even prevent the menace resulting therefrom. It was also discovered that financial investigation is mostly used as a reactive mechanism in Africa and Nigeria in particular and in most **parts** of the world for unveiling corporate and accounting scandals of corporate entities.

It is recommended that for financial investigation to be effective in curtailing and preventing corporate fraud in Nigeria, it should be complemented by the following:

- a) The introduction of more accounting and reporting reforms in the area of corporate financial reporting and the mounting of more severe punishments on any corporate entity discovered applying creative accounting and income smoothening.
- b) The composition of the Board of Directors and Audit Committees should be altered to incorporate more independent outside directors.
- c) The regulatory authorities to corporate entities in Africa should find a way of using financial investigation as a proactive mechanism rather than relying more on it as a reactive mechanism.

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<sup>92</sup>Sourial, M. S., *Corporate Governance in the Middle East and North Africa: An Overview*, (2007), Cairo, Egypt: Egyptian Ministry of Foreign Trade.

The paper also proposes that there should be a revisit to the state of the law guiding the regulations of private companies with a view to widening their scope. Realities of the present times have established beyond doubt that the view taken by the law that private companies are commercial ventures of private concerns are no longer valid and realistic. The law should accept the view that they are companies limited by shares and therefore there is the need for as much control over their activities in the same manner as **Securities and Exchange Commission** regulates dealings in shares by public companies. The reasons are not far-fetched. First, private companies constitute the majority of incorporated companies and have ceased to be mere family based businesses. Secondly private companies are increasingly being funded by public funds and loans provided by financial institutions from the vast accumulation of public savings. This is beside the fact that there has been informal trading in the shares of private companies. In light of the above, the paper proposes that the present state of the law as it affects the securities of private companies be reviewed as follows:

1. The disclosure philosophy should be extended to cover the form and operations of private companies.
2. There is need for SEC to regulate private offering of private companies with the same tenacity as public offers of public companies.
3. The same law applicable to public companies in respect of prospectus, disclosure, allotments liability for misstatements and free transferability of shares should also extend to private companies.
4. Considering the relevance of private companies in term of the externalities they generate with the investing public, there is the compelling need to subject private companies to a compulsory registration and disclosure regime with a securities ombudsman, SEC.
5. Private placement documents generated by private companies should be subjected to the same disclosure rules stipulated by SEC for public companies.
6. The private placement memorandum should be made to contain as much detail as the prospectus. The front page of the memorandum should summarize the terms of the offering. A brief description of the issuers business should be given. Ideally, the front page should contain legal legends or red herring with respect to legal requirements of the offering; persons capable of accepting the offer, the absence of representation other than those contained in the memorandum and the need for investors to obtain independent advice with respect to the offering and other matters.
7. The proposed reform should also provide for the requirement of thorough scrutiny of memorandum of private placement with same vigour as that imposed on prospectus.
8. The statutory civil and criminal liabilities attached to a misstatement in prospectus should also apply to misstatement in memorandum of private placement.



Furthermore, this paper recommends a review of the registration of public companies. The present position is that public issues in Nigeria are patterned after a securities-based registration model. That is, the regulations come into play only when a company decides to go public with its securities. The Investments and Securities Act 2007, does not regulate private offering or securities sold other than by way of public offer. It makes detailed provisions about the disclosure obligations of companies going public and for updating information on companies whenever they intend to issue further or other securities. It is aimed at disclosure that would inform an investor about an investment in a public offering but does not aim at providing future or ongoing information about an issuer. The present procedure is a complete antithesis of disclosure philosophy which in simple terms preaches continuous inflow of information. Under the ISA, public companies seeking to raise capital from the securities market are obligated to make very extensive disclosure of the companies' activities and prospects.<sup>93</sup>

Consequently, this paper proposes a company-based registration system where the focus will be on the registration of companies and not merely on the securities they intend to issue. The focus of a company-based registration system would be one which would require certain companies identified either by size of capital assets or employment enrolment to mandatorily register with SEC. The merits of this system are numerous but paramount among them is the ease of information flow. Company-based registration models mandate the company (issuer) to make available by periodically filing its performance in the market and updated records of its activities.

Finally this paper proposes that there is the urgent need for reform to require private companies of a certain size to be subject to registration and disclosure rules of the SEC. Eligibility for compliance by private companies could be dependent on the size of the company measured by its capital and number of employees. A company with assets about N10 million (Ten Million Naira) equity and loan capital inclusive for instance, has responsibilities to the public notwithstanding that its membership is below 50. Its loan portfolio is invariably owed to public finance institutions with obligations to savers/members of the public. This paper submits that they be co-opted under the regulatory ambit of SEC.

One of the ways of organizing the dispersed shareholders for corporate monitoring is through the instrument of proxy. In view of the problems associated with the proxy system, the Japanese and the German bank-proxy model is being recommended as a means of reforming the proxy system in Nigeria. Under the bank-proxy system, the shares are bought by the banks on behalf of their

<sup>93</sup> See Investment and Securities Decree No 45 (1999).

customers who executes proxy authorization on their behalf so that the bank can sit on the board of those companies and also vote at the general meeting. Most of the time, those banks also have shares in those companies. The proxy rules process should be changed to accommodate a relatively new and important category of shareholder activity namely the desire to influence management and board of directors without directly seeking control of the entire board through proxy contest. In some cases, a Shareholder Advisory Committee is put in place to serve as a shadow board. This is a product of the voting rights exemplified in the proxy process. It is further recommended that the management of the affairs of the company should be left in the hands of the directors. Directors are technocrats in the art of corporate governance and they are in a better position to manage the affairs of the company and control management. However, we have witnessed several cases where the directors have failed in their responsibility resulting in cases of corporate scandals ever recorded in history.<sup>94</sup> This led to various suggestions as to the composition of the board of directors. Some people have advocated for a single board consisting of independent directors.

Others prefer a dual board structure as in Germany. Because of the peculiar situation of Nigeria, the unitary board with independent directors is hereby recommended. However, for public companies, half of the board should consist of independent professional outside directors. The directors will serve as full time basis and they will be on the board of several companies. This will consist of academics, chartered accountant, management and financial experts etc.

It is also recommended that good corporate governance can only be achieved by a combination of both formal and functional convergence. Formal convergence alone may not be effective but functional rules without some elements of coercion will even be less effective. Most of the principles expressed in the rules of best practices are already part of an existing legislation which is enforceable. The conventional means of minority protection is no longer suitable for the type of dispersed ownership we are now witnessing in Nigeria. In order to avoid the crash of our stock exchange, just as it happened in Czech and Poland, urgent steps must be taken to evolve a suitable corporate governance rules. As we have pointed out that the British conventional means of minority protection afforded protection against controlling shareholders and not against management. While the government has taken steps to reform the capital market, however, the level of ignorance on the part of Nigerian investors is still a cause of serious concern. Therefore,

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<sup>94</sup> For example, the fall of hitherto acclaimed first class companies like Enron, WorldCom, Tyco International, Adelphia Communications, Imclone, Nicor, Global Crossing, Sprint and Merck in the case of the United States woke the corporate world from its inebriate slumber.

the SEC and Stock Exchange still have a lot to do in sensitizing the investors on the operation of the securities market.

The leveraged buyout option is being recommended for Nigeria. As we have seen in LBO brings together three groups of people (expert in their own right), the management, the financier (banks) and institutional Investors. It is also a cross between equity capital and loan capital. Because of the involvement of funds from the bank, there is effective check in the management to run the enterprises to repay back the loan. This process could have complemented the public offer for sale employed by the banks in making the mandatory equity ceiling of the Central Bank of Nigeria.

Although, there has been significant inroad to derivative action under CAMA, much still has to be done in this area. As has been shown in this work,<sup>95</sup> the derivative action has been more effective in the United States which gave shareholders unhindered access to the court to challenge any corporate wrong. Nigeria has a lot to learn from the U.S system. Moreover, there will be the need to clearly spell out, as is done in England presently, the procedures for bringing a derivative action under the Rules of the Federal High Courts in Nigeria as far as it affects corporate rights.

It is recommended in this work that institutional investors should get more involved in the sale of shares on the stock exchange. There is a need for a systematic growth of this investment group in Nigeria especially with the dispersed ownership being witnessed today. It is against this background that we further **endorse** the three approaches suggested by John Coffee<sup>96</sup> for a privatization economy like Nigeria.

Apart from suggesting optimal monitor through the institutional investors who has the necessary **skills** to monitor management, he suggested three approaches to reforms in privatized economy of the civil law jurisdiction. They are Judicial, Structural and Legislative reforms. In his judicial reforms, he posited that the courts should be prepared to fill any vacuum created by statutory provisions. A corporate charter is highly incomplete contract and those gaps contained in the contract must be filled up. That the courts in common law jurisdiction has much more discretion

<sup>95</sup> Privatization and Corporate Governance: The Lessons from Securities Market Failure, Op. Cit at 27- 32.

<sup>96</sup> John Coffee Jr, 'Privatization and Corporate Governance: The Lessons from Securities Market Failures, Columbia Law School, Working Paper No. 158. Available at [www.papers.ssrn.com/sol3/papers.cfm%3Fa](http://www.papers.ssrn.com/sol3/papers.cfm%3Fa). Accessed 10 April, 2014.

to fill in the gap than those of civil law jurisdiction and this accounted for the protection offered by the corporate governance of common law countries.

Another aspect of judicial reforms he recommended has to do with the establishment of specialized courts to hear and determine security law disputes. For instance, in the US some aspects of the Federal Securities Act can be enforced before administrative law judges and SEC has powers under section 21C of the Act to impose administrative cease and desist orders, in effect, a type of civil injunction. It is a form of in-house securities remedy. Section 224 of the Investments and Securities Act 1999 in Nigeria established an Investments and Securities Tribunal which powers seem to cover this.

However, there is the need to train judges of the tribunal on corporate governance and especially on securities law. The time for our public companies to devote more funds to serious professional research on corporate governance has come. This should not be left for government or agencies like SEC, CAC alone. The study carried out by John Pound<sup>97</sup> showed that the institutional investors in the US devote enormous resources to research.

Thus, institutional investors would not mind committing a sum of \$18 million on research in order to get an appreciation in the value of the shares that may fetch additional \$80 in a year. The SEC could come in here and insist on companies committing a percentage of their fund on research and also the Bureau of Public Enterprises could do same for their privatized enterprises. The special share introduced in Britain for privatized company can also be explored in Nigeria to prevent a situation where the privatized companies are left exclusively at the mercy of core investors. One of the reasons for bringing in core investors and giving them majority shares is because they are considered to have the required technical and managerial abilities to manage those enterprises better. So Government could retain some shares in enterprises rendering essential services to avoid a situation where the country could be held to ransom. However, government will undertake not to be involved in the directional policies of the company.

It is also recommended that the Nigerian Bar Association should be more involved in the evolution of suitable corporate governance for Nigeria. They should take a clue from the American Bar Association which has intervened severally to ensure that effective corporate governance rules are put in place in the United States. For instance, in March of 2002, following the bankruptcy of Enron, the President of the American Bar Association appointed a task force to investigate corporate responsibility concerns. The task force produced a report which has been

<sup>97</sup> Cited by Coffee, J.C. Jr. *Ibid* note 48.

helped in shaping corporate governance debate in the United States. The Nigerian Bar Association should follow this honourable path. It is recommended that the Nigerian codes of best practices should be reviewed with the aim of incorporating some of the corporate and securities legislations that were enacted since 1995. These legislations include the Nigerian Investment Promotion Commission Act, the Investments and Securities Act. This will give investors, especially international investors, a good idea of the investors' protection in Nigeria and also help in checking corporate fraud.



## A Hybrid of RSA Cryptography with Huffman Compression Algorithms as a Data Security Measure for Internet Users

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### Abstract

*Security of transmitted data calls for serious concern especially in this information-centric era where data resources of businesses and organization are held on remote servers. Too much dependence on the network to protect data had exposed the data to danger of cybercrimes and middlemen attacks. It is then expedient that the stakeholders concerned with the data are involved in the security process that is, users are involved in placing some security measures on their data before giving it to the cloud or remote storages offering data storage as a service. Data encryption and compression algorithms play dependable roles on security of transmitted data (Forouzan and Fegan, 2006; Comer, 2009). Encryption disguises the content of a document such that only the sender and the receiver can get it back. There are many data encryption algorithms ranging from data encryption standard (DES), advanced encryption standard (AES) to Rivest-Shamir-Adleman (RSA) algorithms (Comer, 2009). Data compression or encoding on its own reduces the size of the data before it is transmitted. Data compression has the advantages of reducing network traffic by reducing the size of data to be transmitted. Data encoding algorithms also exist with differences in the technique and type of data to be coded. Among them are Huffman, Lempel-Ziv and arithmetic encoding mechanisms to mention a few. The two steps are not compelled to be adopted on all data or across networks. Firewall sometimes prompts the alert that this data is not encrypted. This work suggests a hybrid of encryption and data compression algorithms as a combined effort from the user level. The showcased algorithms are the use of RSA cryptosystem and Huffman encoding scheme. Data meant for transmission is first encrypted by the human (source of the data) and then subjected to encoding before submission. The implementation was carried out using Java language and sample GUI-based screenshots were documented.*

**Keywords:** Cybercrimes, Cryptography, Huffman encoding, RSA cryptosystem, object-oriented programming



## 1.0 Introduction

Issue on security has cut across different computing paradigms. Early systems witnessed theft of computing systems and data corruptions due to viruses and power outages. The world today is full of indoor and outdoor data hijackers who move with technology to perpetrate evils leading many businesses running at loss. This makes Internet users more concerned on confidentiality and integrity of transmitted data. For instance, despite the tremendous business and technical advantages of the cloud, the security and privacy concerns have been one of the major hurdles preventing its widespread adoption (Shahzad, 2014). This might be justifiable as recent reports show that between January, 2008 and February, 2012, security issues accounted for a combined 54% of all cloud computing related threats. (Ryan, et al., 2013). IDC reports between 2008 and 2010 also showed that of all the challenges facing cloud computing, security ranked as the highest. (Gens, 2009).

Data storage is one of the major services provided in the cloud. Common examples include Amazon Simple Storage Service (Amazon S3) (Amazon Web Services, 2015), Google Drive (Google, 2012), Apple iCloud (Apple, 2011), Microsoft OneDrive (Microsoft, 2014) where storage facilities are opened to clients to keep their data as captured under the Infrastructure as a Service model of Cloud Computing. The security of data stored on these third party storage platforms is a major source of concerns for most cloud customers. Numerous security bridges have been recorded of recent, among which the Sony PlayStation data breach (Baker and Finkle, 2011), where Sony's PlayStation Network was hacked and personal data of about 77 million users were stolen and Dropbox privacy leakage (Yin, 2011), where 25 million user accounts were left vulnerable to attack for close to four hours were one of the most major incidents.

Shahzad, (2014) reported some steps being taken to curb this menace. For example Amazon with its Amazon Web Services (Amazon Web Services, 2015) implements multiple degree of security measures to safe guard not just user data but also physical access to its data centres. Some of these measures include: restricted access to information about data centres (even their exact locations are kept confidential), encryption of data, implementing security best practices and various other forms of security to protect both applications and virtual machines. It should be noted that all these measures are provided by the service providers and not by the users who expose their data to third party hosts.

In this vein, it is also imperative that the sender, the receiver and the sending system with the service provider be involved in asserting security mechanism to hide their data from curious hackers In fact, local data contents encrypted by the owner can also serve as a backup to the simple password authentication system inherent in most operating systems This report presents a portable security conscious platform for individual users on their confidential files. Techniques in data security are presented and a hybrid of these concepts is proposed for network users, which consists of the popular RSA encryption algorithm and an encoding mechanism based on

Huffman as a measure to protect text data. This hybridised concept serves two purposes in one - protection of data and reduction of data size on disk or on transit.

The organization of the paper is as follows: Section one introduces the efficacies of having a handy portable and user friendly crypto-compress systems for personal use while section two discusses related algorithms for cryptography and data compression. In section three, the RSA and Huffman algorithms were presented respectively. The object-oriented implementations were described in section four while modality for usage and conclusions were reported in sections five and six respectively.

## 2.0 Related Works

The rapid growth in Information-centric networks emanating from the ability to keep confidential information in remote places rather than on local directory has unfortunately contributed to loss of confidentiality in data transmission to hackers. This is because as new technology emerges, network looting hackers are also advancing with the aim to intrude into the information being transmitted using the technology. Their perpetration ranges from wiretapping to phishing, spoofing to scams all eventually resulting in loss of valuable information or controls over the data. An objection to extensive use of the cloud by many organizations today is the fear on data confidentiality. Among the techniques that exist in literature to protect transmitted data are the use of data encryption (Diffie and Hellman, 1976; Vijay K and Sharma, 2012), digital certificate (Rivest et al, 1977; Stallings, 2007), digital signature (Stallings, 2007), two-factor tokenization, firewall and intrusion detection systems. Among these measures, data encryption dominates in handling bulky data such as text and video (Forouzan and Fegan, 2006).

## 2.1 Data Encryption

According to (Stallings, 2007; Stallings 2011; Kurose and Ross, 2010), data encryption, simply called cryptography is one of the fundamental security techniques that can guarantee data confidentiality or privacy on the Internet. It is a process of encrambling of data such that it becomes meaningless to intercepting intruders called the middlemen during transit. Simply, an encryption mechanism accepts a message  $M$ , encrambles it using a specified key to obtain a new message  $C$  called ciphertext. The cipher text is transmitted as packets to the specified destination. Upon reception, the destination system uses a specified key (which may be the same as the one at the source system or different) to decrypt the cipher text  $C$  to obtain the message  $M$  which is the original message. Since, the middleman might not know the key, he cannot decrypt it. The strength of these algorithms is the length of the key and the secrecy of the key. An algorithm that can stand the test of the time must use long keys at multiple runs, have strong mathematical backing and tested by expert (cryptanalyst) to prove its ruggedness. For instance, it took about twenty years for the DES to be hacked by cryptanalyst while AES is yet to be hacked (Kaliski, 1989; Daemen and Vincent, 2002)

In (Kurose and Ross, 2010; Forouzan and Fegan, 2006), two types of keys are common with the encryption algorithms, the private and public keys systems. In the Private Key system, a single secret key known only to the communicating system is used to for both encryption and decryption. The Public Key encryption system on the other hand uses two keys. The first is a private key and the second a public key. The Public Key is made known but the Private Key is kept secret. Thus, the original message is encrypted with a public key but decrypted with the private key. Exposing the public key does not guarantee an intruder to penetrate because he requires the receiver private key to decrypt. This can be modelled as,  $M = \text{decrypt}(\text{public key}, \text{encrypt}(\text{private key}, M))$ , where  $M$  is the message being transmitted.

In literature, a number of public key systems exist among which include the use of RSA (Rivest *et al.*, 1977; Evgeny, 2009; Kurose and Ross, 2010), Data Encryption Standard, DES (Biham, 1990), Advanced Encryption Standard, AES (Daemen and Vincent, 2002). It amazes a network user at times when a prompt of insecurity message comes from a firewall such as “your data is not encrypted or “your network is not secured”, do you want to allow this program?” As at now, it is the network protocol and/or network provider that play the role of data encryption or compression. Even though we have operating system facility like winrar, password for reading or modify in operating systems, most users are negligence to their use, instead they enforce physical restriction to offices hosting valuable data.

## 2.2 Data Compression

Data compression is another network approach to curtail full text exposure as it seeks to reduce the size of the conveying data and reduce network loads (Khalid, 2006, Blelloch, 2013). A compression algorithm accepts as input the message content  $M$  of size  $S$ , applies a scheme to produce another compressed message  $C$  of size  $L$ ,  $L \leq S$ . The new message  $C$  is transmitted through transmission channel to a designated destination with decompressing information as codebook. At the destination, another algorithm called decompressing algorithm, takes the received message  $C$  with the codebook attached and produces a new message  $D$ , the decompressed message. The compression algorithm is classified as lossless if the original message  $M$  is exactly the same as message  $D$  at the destination, otherwise it is called lossful (Khalid, 2006, Blelloch, 2013).

An added advantage of data compression to data disguise in (Forouzan and Fegan, 2006) is that, it reduces the size of the disguised data before transmission, hence reduction in traffic and subsequently improve network performance. A number of algorithms also exist in literature for data compression. Some are the Huffman encoding (Khalid,2006), Lempel-Ziv encoding (Arthur *et al.*, 2003) and arithmetic encoding.

## 3.0 Crypto-Compress Hybrid Model

The new model this paper is proposing at the user level in a network is the combination of encryption and compression algorithms to aid effective security on confidential data. As introduced, a security conscious network user implement a first level security measure on data before handing over to the network or to the cloud system. The objective therefore is to ensure an end-to-end data security in a bid to mitigate the effect of middleman attackers as users shift to the cloud

In order to achieve this, RSA encryption algorithm in (Rivest et al, 1977; Kurose and Ross, 2010; Evgeny, 2009 ) is used to showcase the proposal while Huffman encoding (Robert,2003) is then applied to the encrypted data before storage or communication.

### 3.1 RSA Encryption Algorithm

This is the first and most common public key encryption implementation; named after 3 MIT mathematicians who developed it in 1977, namely: Ronald Rivest, Adi Shamir, and Leonard Adleman (Rivest et al, 1977, Evgeny, 2009). RSA today is used in hundreds of software products and can be used for key exchange, digital signatures, or encryption of small blocks of data. RSA uses a variable size encryption block and a variable size key. The key-pair is derived from a very large number, say  $n$  which is the product of two prime numbers chosen according to special rules; these primes may be 100 or more digits in length each, yielding an  $n$  with roughly twice as many digits as the prime factors. The public key information includes  $n$  and a derivative of one of the factors of  $n$ ; an attacker cannot determine the prime factors of  $n$  (and, therefore, the private key) from this information alone and that is what makes the RSA algorithm so secure.

The RSA cryptosystem contains the following algorithms (Kurose and Ross, 2010):

#### 1. Key Generation Algorithm

The algorithm in (Kurose and Ross, 2010) follows these procedures:

1. Generate two large random primes,  $p$  and  $q$ , of approximately equal size such that their product  $n = pq$  is of the required bit length, e.g. 1024 bits.
2. Compute  $n = pq$  and  $\phi = (p-1)(q-1)$ .
3. Choose an integer  $e$ ,  $1 < e < \phi$ , such that  $\text{gcd}(e, \phi) = 1$ .
4. Compute the secret exponent  $d$ ,  $1 < d < \phi$ , such that  $ed \equiv 1 \pmod{\phi}$ .
5. The public key is  $(n, e)$  and the private key  $(d, p, q)$ . Keep all the values  $d, p, q$  and  $\phi$  secret. It is preferred sometimes to write the private key as  $(n, d)$  because you need the value of  $n$  when using  $d$ .

where:

$n$  is the *modulus*.

$e$  is the *public exponent* or *encryption exponent* .



**d** is the *secret exponent* or *decryption exponent*.

## 2. Encryption

A sender A on a network does the following:

1. Obtains the recipient B's public key (**n, e**).
2. Represents the plaintext message as a positive integer **m**,  $1 < m < n$
3. Computes the cipher text

$c = m^e \bmod n$                       Sends the cipher text **c** to B

## 3. Decryption

Recipient B does the following:-

1. Uses his private key (**n, d**) to compute  
 $m = c^d \bmod n$ .
2. Extracts the plaintext from the message representative **m**.

### 3.2. Huffman Encoding

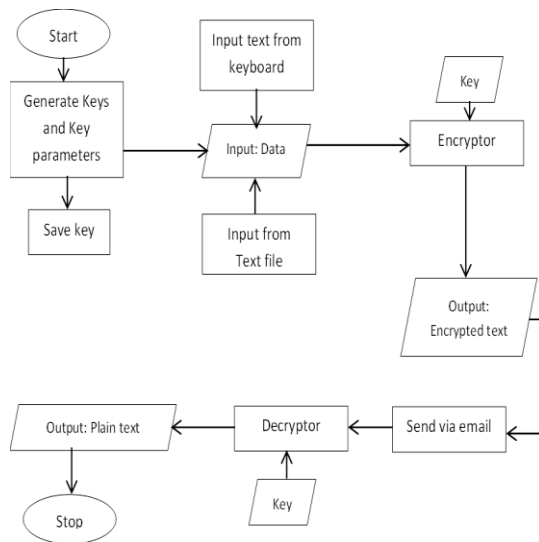
According to (Robert, 2003, Khalid, 2006) , this encoding scheme accepts a message, computes a frequency count of available letters in the document, sort them into a priority queue list. It then draws a binary tree structure of the priority list having all the letters at the leaves of the tree. The trees has both the left and right subtrees. Each edge in any of these subtrees that falls to the left side of a root node is assigned a binary value 0 and each edge at the right of any root node is assigned a 1. Thus, codewords are generated for each letter by traversing from the root to the particular letter writing out the binary values of the edges to the letter starting from the main root of the binary tree.

Letters that occur most often has a lesser code word than those that less frequent. A new message called codewords is then produced and send to the destination with a codebook containing the letter and its code word. An agreed codeword demarcator is used to separate the codewords of the message characters.

At the receiving end, the decompression algorithm receives the coded message and the codebook and follows an agreed standard character code (ASCII, UNICODE, EBCDIC) to obtain the original message back.

## 4.0 Object Oriented Implementation of RSA

The architecture of the implemented RSA encryption algorithm shown in Figure 1 with each stage involved as a high level view. The architecture shows the process and the sub-processes involved from the launch of the application to the termination of the application process.



**Figure 1: Architecture of the RSA-Huffman implementation**

For Application development of the RSA using Java programming language (Deitel and Deitel, 2012), the following classes were built:

**The Mainframe class:** This class represents the main entry into the system; it is a frame which is displayed first when the application is started. The class contains the main controls found in the system; these controls are in form of menu items, buttons and a text area; the class also contains the various methods which handle user's actions through the controls (Enchrpt, Decrypt, Compress and decompress buttons).

**The keygenerationform class:** This class is also a JFrame found in the application; it is used during the key generation process. The class contains various controls and methods for responding to the various actions carried out by a user. This class is responsible for the representation of the generation of the needed keys and key parameters in visual form.

**The output class:** This is yet another JFrame that can be found in the implementation of this RSA cryptosystem, it contains buttons and a text area. In the class, there are methods which handle the action of the user during decryption and mail sending.

**RSakeygeneration class:** This class contains the methods for the key parameter generation and the saving of keys to file. It contains the following methods;

- **RSakeygenerator:** This method is used to initialize the private key size class member and construct an object of the class.
  - **Setkeyfile:** This is used to set the string name of the keyfile class member.
  - **Getkeyfile:** This is used to return the name of the file. i.e. the key file class member
  - **Getparam:** This method is used to calculate private and public key, once the key size is set during construction of the class object. The method performs the major arithmetic involved in key generation and stores the values for each parameter in a class variable.
  - **Getkeysize:** This method is used to return the value of the key size class member to a method or caller.
  - **PrintToFile:** This method is used to save the value generated during a call to the Getparam method. It contains a print writer; which is used to print the values of private and public key plus the other parameters that might be needed to file.
  - **Setkeysize:** This method is used to set the value of the keysize class member to a specified value.
1. **RsakeyEncryption Class:** This class performs a major function in the implementation. It contains private members both of the BigInteger type. And the methods:
- **RsakeyEncryption:** This is used to create an instance of the class and at the same time; pass the value of the file name of the file containing the encryption key.
  - **encrypt:** This method performs the function of encryption; it takes two parameter; the first, a name of the file where the plaintext can be found and the second a name of the file where the encrypted text is to be stored.
  - **PutBtesBlock:** This method is used by the encrypt method to put the array of Bytes of the cipher text generated into blocks and remove the extra byte added during conversion from Big integer to Byte (Array of Bytes). The method takes two parameter;
  - **PadByteBlock:** This method is used to ensure the number Bytes in the clear text are large enough so that when broken into parts, it gives an equal division.
6. **RsaKeyDecryption Class:** This class represents another major part of the implementation; it contains the following class members.
- **d:** This is the private decryption key: it is of the type Big integer
  - **n:** The key modulus; is also of the Big integer type
  - **RsakeyDecryption:** This is used to create an instance of this class and at the same time pass the name of the file containing the private key and the key modulus.

- **decrypt:** This method is used to perform the decryption function, it takes two parameters; the first is the name of the encrypted file while the second is the name of a location where the decrypted file will be saved.
  - **GetDataSize:** This method is used to get the data size from a padded block; it takes an array of byte as its only parameter and returns an integer value which represent the value of the data size.
  - **PutBytesBlock:** This method is used by the decrypt method to put the array of bytes of the clear text generated or recovered into blocks and at the same time remove the extra-byte added during conversion from big integer into an array of Bytes. The method takes as input two parameter of the types array of Bytes.
1. **Domail Class:** This class contains the method that performs the sending of mails, the mail will contains an attached file which will represent the encrypted data that a sender desires to send to a receiver.
  2. **MailForm.java class:** This class provides the user interface where a user can perform the mailing operation; it contain methods that checks if the user has supplied all the required fields with the needed parameters; it also contain methods that respond to the actions performed by users through the clicking of a button.

#### 7. CompressFile class: this invokes the compression methods

- **GetFile** option which prompts for word to compress or data file to compress (browse option)
- **SetFrequencyFile:** a method that computes the frequency counts of the letters in the document
- **ProduceTree:** A method that take letter frequency file and produces a binary tree
- **GenerateCodeWord:** A method that generate the codewords and the codebook
- **DecompressCodeWord:** Accepts the codebook and code words and use ASCII character representation to obtain back the message.

### 5.0 Results and Usability of Simulated Crypto-compress Model

The intended aim of this paper is to come up with a portable user friendly crypto-compress application that can be used indoor, outdoor, online or offline to scramble and reduce confidential data kept on hard disk, databases, phones, cloud and even data that are displayed on any visual display unit. For analysis purpose, we intend to benchmark the algorithm with the original RSA algorithm to estimate the overhead associated with attaching a compression scheme to it. Since, we cannot obtain effect of encryption from a network provider for now, the algorithm complexities are considered in time and space required for the benchmark and the hybridized version on a single computer system. It is expected to be distributed for usage and the outcome influence gathered for analysis.

The Interface designs are shown in Figure 2 Figure 3, Figure 4 and Figure 5. Figure 2 represents the main entry into the system; it shows the various operations performed by the system in form of buttons and menu items. A user can make selection from the available options based on the intended operation he/she wants to perform. A user of the system begins by generating a key and saving it to file as shown in Figure 3.

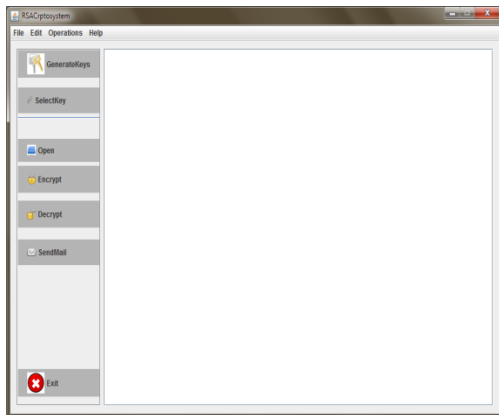


Figure 2: The Application interface

Figure 3 shows the process of key generation in a graphical form; the form contains text fields for representing various key parameters when they get generated, it also contain a button for performing the save operations, it launches the save dialog form when clicked.

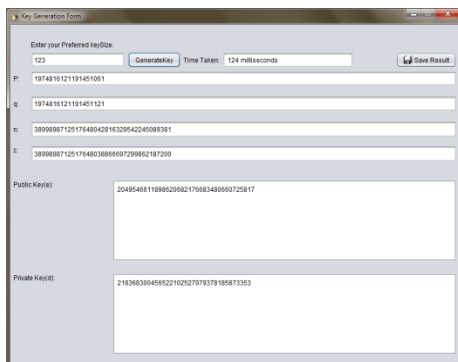


Figure 3: The key generation interface

The user supplies the desired key length and then clicks on generate key button to generate the key. The key and key parameters generated must be saved to file with a name by clicking on the save result button for later reference.



The diagram below shows where the outputs of encryption and decryption will be displayed. This frame contains a text field where the result of encryption and decryption are shown. It also contains a button for the sending of mails; in case the user intends to send the encrypted output as mail. Also in the same frame a user can save the content of the text area by specifying a name with an extension by pressing the save button.

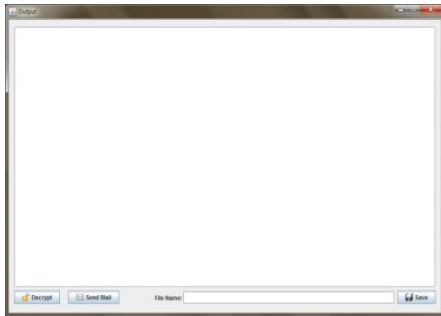
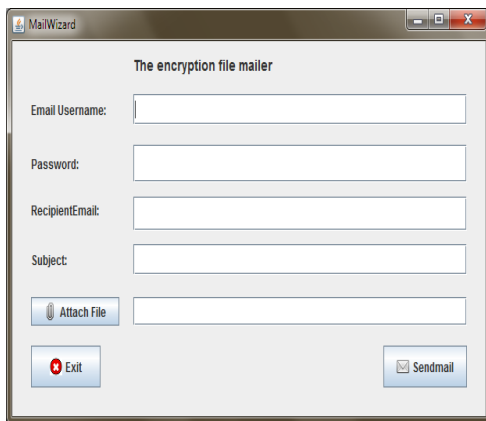


Figure 4: The output interface

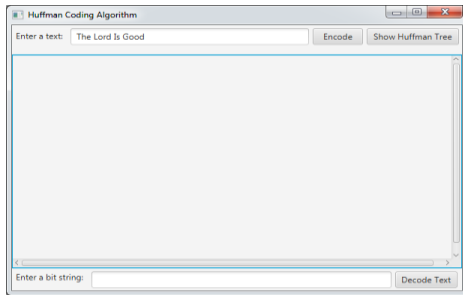
A user can from the form above decrypt an encrypted data and save the content of the text area into a file by specifying the file name and clicking on the save button. The user can also launch the mailing interface from here by clicking on the send mail button.

Finally, Figure 5 presents the area where a user if connected to the Internet can send the encrypted file as a mail by selecting the file from the systems memory. Here the user will be asked to provide the necessary parameters needed for authentication on the internet before the file can then be sent to its destination address.

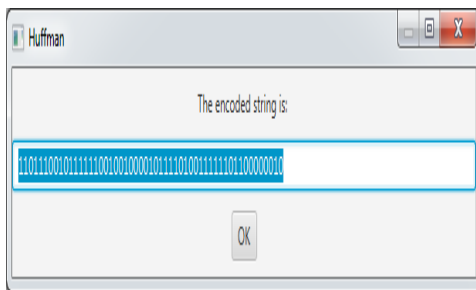


**Figure 5: Emailing form interface**

The compression and decompression interfaces are as shown in Figure 6 and Figure 7.



**Figure 6: Huffman Sample result**



**Figure 7: Huffman Output**

## 6.0 Conclusion

This paper carried out a review on RSA encryption and Huffman compression algorithms and then moves ahead to design a usable encryption-compression algorithm that is portable, user friendly and can be personalized to be used on phones, laptops, and the even for data meant to be transmitted through the Internet. It was implemented using the Java programming language (i.e. object oriented programming language). RSA encryption algorithm has been tested, cryptanalysed but still stand as a rugged algorithm.

In conclusion, computer users need not relent on individual vigilance on important data in this era of indoor and outdoor intruders. Cryptography is the first step to protect confidential data and a further attempt by data owner to compress the encrypted data before sending would be of higher advantage considering storage devices and network load.

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**CYBERCRIME ACT OF 2015 AND E-COMMERCE IN NIGERIA:  
IMPACTS, CHALLENGES AND PROSPECTS**

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**Abstract**

*The information revolution coupled with the strategic leveraging of the internet has exposed a number of relatively open societies to the dangers of cybercriminals, hackers and malicious cyber activities in commercial business transactions. A new digital revolution is now experienced worldwide, about which 30 percent of global population is actively living in the cyberspace, in the real terms. Virtually all business transactions and other daily human endeavours take place in online platforms. Cybercrimes and the threat it creates are growing in its reach, in accordance with similar growth in information technology. The purpose of this paper, therefore, is to investigate the impact of Cybercrimes Act of 2015 on e-commerce in Nigeria, its challenges and prospects. Qualitative research technique was adopted. Data were collected through secondary sources, such as textbooks, journal articles, internet, archival records, constitution and cybercrime Act. Content, thematic and secondary analytical methods were adopted, using research questions as drivers. Applying the Cybercrimes Act, 2015 as framework of analysis, the paper argues that most of the lacunae which had hitherto rendered the Nigerian cyberspace unsafe for transacting business have now been addressed. Moreover, the coming into force of the cybercrimes Act changed the Nigeria legal landscape significantly, with the overall effects of better securing and further expanding the scope of e-business transactions in Nigeria. The paper further argues that, though the Act has generated fresh risk management issues, it has created institutional framework for enforcement of cybercrimes. There are prospects that the new legal regime will boost the confidence of individuals, firms and companies to transact more businesses and render services online without the fear of falling victims to identity theft, plagiarism or copyright violation.*

**Key Words:** *E-commerce, cyberspace, cybcybercrimes, cyber security and malicious cyber activities.*

**INTRODUCTION**



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With the advent of globalisation, the world is shrinking into a borderless global village. This trend is being facilitated by advancement in technology by which people and information residing miles apart are readily accessible through one or few clicks on a simple digital revolution is said to be underway in which about 30% of global population is actively in the cyberspace in real terms.

Today, virtually all commercial, banking and promotional activities take place through online platforms. The world's growing cyberspace is driven by new innovations which are increasingly being aided by modern computer technologies, the "Big Data" phenomenon and the "Internet of things" (IoT).

Since commercial or business activities prior to computer age took place only in the physical spheres like land, air and the sea are governed by laws made to handle the peculiar nature of those spaces. All these commercial activities are taking place over the cyberspace. Hence, it is imperative that cyber laws are enacted in order to cater to the needs of, as well as the problems emanating from doing business through the cyberspace.

With the advent of internet and mobile phone applications, online transactions became a way of life without any specific law governing it. This error of omission posed great risks to individual businessmen, organisations and even the government, some of whom in many occasions had fallen victims to cybercrimes without any legal redress. However, succour came in May, 2015 when Cybercrimes Act was signed into law. The Act prohibits, prevents and prescribes punishment for their commission. The Act also creates institutional and enforcement framework. The Act addresses most of the lacunae which had hitherto rendered the Nigerian cyberspace unsafe for transacting business. In addition to improving consumers' and investors' confidence in Nigeria electronic business environment, the Cybercrimes Act has generated fresh risk management issues.

The purpose of this paper, therefore, is to investigate the impact of the Act on domestic and international commercial transactions undertaken in Nigeria. The paper is driven by four research questions, namely:

- (1) What was the legal regime prior to the reform governing electronic commerce before the enactment of Cybercrimes Act of 2015?
- (2) What are the impacts of Cybercrimes Act of 2015 on electronic commerce in Nigeria?
- (3) What are the challenges confronting the Cybercrimes Act of 2015 in Nigerian business environment? and
- (4) What are the prospects of Cybercrimes Act of 2015 on electronic commerce in Nigeria?

Against this background, the paper is divided into four sections. Section one addresses the introduction, conceptual clarification and theoretical underpinnings. Section two examines legal regime in Nigeria and Reform undertaken through the enactment of the Act. Section three

examines the impacts, challenges and prospects of online business in Nigeria. The final section concludes the paper.

### **CONCEPTUAL FRAMEWORK**

The concept of cyberspace can be used as an extension to facilitate and enhance traditional forms of crime as well as create new forms of malicious cyber activities (also known as cybercrime). Cybercrime is also inter-related with the concept of cybersecurity and cybersafety. The former generally refers to the measures (for example, technologies, processes and best practices) designed to protect the confidentiality, availability and integrity of information and communication technology. Cybersafety typically refers to the social and personal risks of operating in cyberspace and the responsible use of information and communication technologies.

Cybercrime and the threats it creates are growing in its reach in accordance with similar growth in information technology. Some countries account for more of the variation in cybercrime activities than others, which affect less criminally-involved nations as well, considering that cybercrime does not respect national borders over the internet. Cybercriminals have become organized in such a way that has allowed the crimes they commit to become part of a booming business model.

Malicious cyber activities are no longer a matter of “if” but of “when” and in our increasing inter-connected world, threats to our national sovereignty can come from unexpected sources and directions – globalised challenge.

Cyber threats are increasingly important and strategically relevant in both developed and developing countries. Cybersecurity is one of the highest priority items on the global policy and national security agenda, and an increasingly challenging policy area of governments. The threats to cybersecurity are further exacerbated by relatively low cost of entry into cyberspace and an increase in the availability of easy-to-use toolkits to build malware (malicious software). The latter is likely to remain a threat to businesses, governments and the community in the foreseeable future. Malware once created can be mass replicated with little or no effort and at significantly low cost. The widespread availability of malware toolkits lower the technical bar to commit malicious cyber activities. According to Symantec (2012:37), toolkits, “are relatively easy to find and sold on the underground black market and web forums as prices range from US\$40 to \$4,000”. Anybody (including individual with limited programming and or hacking skills) can use the purchased toolkits to create sophisticated attacks to steal online banking credentials or sensitive information.

### **THEORETICAL UNDERPINNINGS**

There are some theories of cybercrimes. Among the most prominent theories is routine activity theory (RAT), formerly used to predict aggregate street crime rates but has since been adapted to fit the cybercriminal. There are research studies to support routine activity theory (RAT) in terms

of predicting cybercrime (Bossler & Holt, 2007; Choi, 2008; Holt & Bossler, 2009, Hutchings & Hayes, 2009; Pratt et.al., 2010). However, RAT has been used only to predict whether an individual will be the recipient of cybercrime and will engage in deviance online. There has not been research linking RAT with cybercrime at an aggregate level such as that of nations.

Research has focused on which countries are high in cybercrime activities. But this research does not report why these countries are at such security risk. The reports are mostly descriptive, with few to no inferential statistics used.

This study is intended to fill these gaps by examining criminal law context and contributing to knowledge or literature. Criminal law is only as good as the theory underlying the behavior it is intended to deter or limit. Most efforts in the light against cybercrime are through technical security measures, such as anti-virus, spam filtering, and encryption (Balkin et. al., 2007). This prevents cyber attacks from succeeding where these security measures are sufficient, but do not prevent the cybercriminal's attacks from finding suitable targets elsewhere. However, the best means to eliminate a cybercriminal's attacks completely is by incarcerating the offender, which requires law enforcement. Ideally, incarceration would have a deterrent effect beyond incapacitation. Although, it is uncertain to what degree law enforcement is capable of having a sustainable effect.

For the purpose of this paper, cybersecurity framework (using, Cybercrime Act, 2015) is adopted for analysis. This is because cybersecurity is one of the highest priority items on the global policy and national security agenda, and an increasingly challenging policy area for governments. Besides, criminalising cybercrime activities addresses the lacunae from previous studies. In summary, Cybercrimes Act, 2015 criminalises certain acts, prescribe punishment for their commission, creating an institutional and enforcement framework.

## **METHODICAL APPROACH**

Qualitative evidences were collected from secondary sources, such as textbooks, journal articles, reports, internet, archival records, constitutions and cybercrimes Act of 2015. Content, thematic and secondary analytical methods were adopted. Through these methods, key concepts were elicited, coded and categorized into themes. Thematic and secondary analyses followed, using research questions as drivers. The use of secondary analysis is justified by literature from similar studies of this nature (Hakim, 1982; Baker, 1988).

## **ANALYSIS AND RESULT**

### **PRIOR LEGAL REGIME AND REFORM**

A review of the legal regime before the enactment of the cybercrime Act can best be done by understanding how electronic/online business transactions fared in the periods before 2011 and thereafter, before the enactment of the cybercrimes Act. Before 2011, no recognition was given to electronic or computer generated documents in our evidential law. The main effect of this

situation was that where disputes arose out of commercial deals concluded by e-mails or via online platforms, the computer-generated contract documents were not competent for proving their contents in the court of law (even where they were admitted for “relevancy” sake), as it was not clear whether they should be treated as primary or secondary evidence under the Evidence Act, Cap E14, Laws of the Federation of Nigeria, 2004-Old Evidence Act.

Besides, there was the challenge of proving the authenticity and/or the identity of the owner of an electronic signature appearing on any computer or online print-out of contractual terms. However, the enactment of the Evidence Act of 2011 (New Evidence Act) provided for the admissibility of computer-generated documents, the recognition of electronic signature and waiver of its proof by means of writing on a tangible medium. This was the first major boost to e-commerce in Nigeria prior to the coming into force of the Cybercrime Act of 2015.

Despite improvements on the evidential value of electronically-generated documents, many cybercrimes which undermine the confidence of parties to online transactions and deter, “ipso facto”, the growth of e-commerce still went unchecked. This was due to the fact that common fraudulent and harmful electronic and internet activities, such as scamming, cybersquatting, etc, were not defined in any statute and, therefore, were somewhat “unknown” to the Nigerian legal system. It is trite that an action will only constitute a crime in Nigeria where it is stated by a statute, to be a crime and the penalty thereof, is prescribed in the written law see section 36 (12), constitution of the Federal Republic of Nigeria 1999, as amended. Besides, neither any court with designated jurisdiction to prosecute cybercrimes nor a body with the needed specialised skill and machinery for properly investigating alleged commission of same (other than the Economic and Financial Crimes Commission and the police force, which are trained to generally deal with conventional criminal writers) existed.

### **THE REFORM AND IMPACTS ON E-COMMERCE IN NIGERIA**

The coming into force of the Cybercrimes Act of 2015 changed the Nigerian legal landscape significantly, with the overall effects of better securing and further expanding the scope of e-business transactions. Some of the specific provisions of the Cybercrime Act which are expected to impact investments and general commercial activities in Nigeria, include:-

- (i) Creation of the concept of “critical infrastructure” (see Section 58 of the Cybercrime Acts) and the empowerment of the president to designate any computer system as critical National information infrastructure (See Section 3 of the Cybercrimes Act).
- (ii) Presumption of regularity and binding effect of electronic signatures in respect of many common business transactions (See Section 17 (1) of the Cybercrime Act).
- (iii) Creation of new offences by criminalising certain fraudulent activities done through electronic devices and the internet, which were not previously defined as crimes in the country’s regular penal laws ( see Part III, Section 5-36, Section 46 and general section 58 of the Cybercrimes Act) – and the creation of both individual and corporate liabilities

- and penalties, such as: committal of the directors of affected companies to various terms of imprisonment, as well as imposition of heavy fines on affected organisations.
- (iv) Protection of organizations' copyrights in trademarks and domain names.
  - (v) Obligation of business entities to report incidences amounting to cyber threats – (See Section 21 of the Cybercrimes Act).
  - (vi) Obligation of business entities to report incidences amounting to cyber threats (See Section 21 of the Cybercrimes Act).
  - (vii) Duty of service providers to collaborate with law enforcement agents (including by providing access to data stored) in relation to electronic transactions (See Section 38, 39 and 40 of the Cybercrimes Act).
  - (viii) Establishment of institutions for the enhancement of cybersecurity (See Sections 42 & 44 of the Cybercrimes Act).
  - (ix) Obligation of financial institutions to ascertain and secure identities of customers that are provided with “Access Devices” for computer transactions, and the prohibition of the vesting of posting and authorising access in a single employee (See Sections 37 & 19 of the Cybercrimes Act)
  - (x) Provision for a well-coordinated system of administration and enforcement of the cybercrimes law (See Sections 41, 42, 44, 47 and 49 of the Cybercrimes Act).
  - (xi) Vesting of jurisdiction to try offences in the Federal High Court and Provision for trans-border cooperation on investigation, prosecution and enforcement of court judgments in respect of cybercrimes (See Sections 50, 51 & 52 of the Cybercrimes Act)<sup>1</sup>.

Besides, cybersecurity brought about successful implementation of the Bank Verification Number (BVN) exercise, an initiative powered by the Central Bank of Nigeria (CBN). The Report by the Chairman, Nigeria Electronic Fraud Forum – Director, Banking and payment system Department of CBN, (Fatokun, 2015, P.31) indicated that loss arising from “electronic payment fraud had fallen by 63% percent and there had been a reduction of 45.98 per cent in attempted online fraud by the end of 2015 as against the beginning of the same year”<sup>2</sup>.

### **CHALLENGES OF CYBERCRIMES ACT OF 2015 ON E-COMMERCE**

The cybercrime act passed into law in 2015 is a welcome development but many key stakeholders, such as: the judiciary and law enforcement agencies are yet to come up to speed in understanding and implementing the Act. Besides, there is the problem of data harmonization process, which will enable government investigate cybercriminals. As it would be able to tell accurately who the citizens are, their age, home address, work place, phone numbers, bank details and whole of other information in just one database.

The enactment of Cybercrime Act 2015, has heightened risk management. Business entities are going to tighten their belts in the area of risk management as it affects corporate information security. This will enhance the sanctity of electronic commercial transactions under the new legal regime because substantial breach of information security will not only affect



customers/subscribers but will also be costly for business organisations. Business organisations, such as financial institutions, internet service providers (“ISPs”) and communication companies, among others, who hold critical data of private and corporate citizens in their computer systems/programmes or networks which may now be considered as “critical infrastructure”. Such data are vital to the country, and any incapacity or destruction of, or interference with, such system and assets could have a debilitating impact on national or economic security, national public health and safety, or any combination of those matters.

Another challenge is the new position that all electronic signatures on documents (with the exception of certain critical transactions listed under section 17(2) of the cybercrime Act) are legally presumed to be valid. The burden of proving that any electronic signature appearing on a document, evidencing a company’s transaction or contract, is forged rests squarely on that company. Therefore, it will be imperative for corporate organisations and personal to invest in cybersecurity apparatus and techniques in order to fortify their computer system/programmes against hacking or other electronic identity-theft practices.

A new challenge is also created, by the cybercrime Act, for business organisations as a result of the obligation imposed on them to report cyberthreats on their computer systems. The new position is that all organisations operating a computer system or network must immediately inform the National Computer Emergency Response Team’s (“National CERT”), so that coordination center of attack, intrusions and other disruptions likely to hinder the functioning of another computer system or network, the National CERT can take the necessary measures to tackle the issues, which measures may involve the isolation of such computer system or network till the issues are resolved. Failure to make the report within seven (7) days of the occurrence of the threats attracts the penalty of internet services denial with the compulsory payment of ₦2,000,000 into the National Cyber Security Fund (“NCSF”). As a result of these new requirements, business are going to be faced with the challenge of determining the optimal decision to make when confronted with cyber threats, for instance, whether they should:

- (i) Immediately report such occurrences to the National CERT, a decision that may have adverse impacts on their operations, for example, their systems/networks being declared as (NII); or
- (ii) First attempt to deal with the threat internally before reporting same (a situation that may make them liable to penalties if such internal actions eventually fail)?
- (iii) Further, ISPs are required to report to relevant authorities or law enforcement agents, when requested, whatever traffic data and subscriber information which they are lawfully required as retain and protect. This will be another important risk factor for other business organisations that are clients of the ISPs. It is likely that firms/companies will begin to demand the inclusion in their internet service agreements, clauses that will compel ISPs to notify them whenever any data that relate to their operations are requested by third parties such as law enforcement against.

### **PROSPECTS OF CYBERCRIMES ACT OF 2015 ON E-COMMERCE**

Enactment of Cybercrimes Act 2015 has improved confidence by individual consumers and organisation investors, leading to more business transactions. There is hope that the new legal regime will boost the confidence of individuals, firms and companies to transact more businesses and render services online, without the fear of falling victims to identity theft, plagiarism or copyrights violation. For instance, the Cybercrimes Act criminalises cybersquatting, that is, any act which amounts to the acquisition of a domain name over the internet in bad faith to profit instead, destroy reputation, and deprive others from registering the same, if such a domain name is an existing and legally registered trademark or is confusingly similar or identical to it; or similar and identical to the name of a person; or acquired without right or with intellectual property in it.

The widespread confidence which the new regime is likely to engender, to the extent that one will most likely be dealing with the real person/entity as represented in any online business proposal, negotiation or actual transaction should significantly raise the volume of e-business in the country.

The establishment of institutions which are going to work together to enhance cybersecurity in the country should further boost confidence and ultimately result in increase in the volumes of e-commerce. In this connection, the Cybercrimes Act established (1) the Cybercrimes Advisory Council, which is the policy think-tank for coordinating all research and policy issues “relating to the prevention and combating of Cybercrimes and the promotion of cyber security in Nigeria”; and (ii) the National Cyber Security Fund (NCSF) which will provide substantial part of the needed capital for financing the country’s Cyber Security Policy.

Further, the Cybercrime Act mandates all financial institutions to verify the identities of their customers before providing them with any “Access Device” (a list of what constitutes an “Access Device” is contained in section 58 of the Cybercrimes Act) for electronic transactions. Similarly, no employee of a financial institution is to be vested with both posing and authorising access at the same time. It is expected, that these statutory provisions shall limit the incidences of identity theft; fraud via ATM/POS terminals; and fraudulent issuance of electronic instruments.

Invariably, as the cyberspace becomes more secure and also easy to link through the electronic devices, such as the mobile phone; the use of electronic money transfer; mobile banking and other electronic financial services will become almost ubiquitous. One hopes to see more people from the informal sector of the economy and those who are largely regarded as previously “un-bankable” opening bank accounts and subscribing to financial services through e-platforms.

There is expectation of rise in volume of commercial litigation arising out of contractual disputes. The lack of a specialised statutory regime governing cyber-related contractual

agreements in the past, had limited not only the volume of commercial deals concluded electronically but also the number of cases instituted for seeking redress in case of breaches. The Federal High Court is now conferred with special powers to try cyber-related offences and the jurisdiction is nation-wide. Disputes shall be given speedy trial without room for inter-locutory applications for stay of proceedings.

Finally, the cybercrimes Act provides for cross-jurisdictional cooperation. Given the global reach of the internet, cybercrime itself can originate anywhere on the globe and target any country that has internet users. Cross-jurisdictional cooperation, therefore, will ensure that investigation of allegations of offences shall enjoy mutual assistance from foreign countries, while accused persons, against whom prima facie cases are established, and convicted persons in respect trans-border transactions, shall be liable to extradition. In effect, there will be better guarantee of the sanctity of commercial contracts.

## CONCLUSION

Cyberattacks are universal threat with implications that cut across the global, financial and economic systems. Nigeria, with its cybercrimes Act, has moved a step further towards joining the league of cyber-protected markets.

Nigeria is now poised to take advantage of information sharing among nations of the world having cyber-related laws. Expectedly, information will be shared about sophisticated technologies deployed by cybercriminals whose activities include hacking, phishing, spamming, spreading of computer-virus, cyber squatting and violent attacks; as well as the mechanisms for combating these crimes.

Nigeria, with a population of 170 million and whose business communities are connecting to one another and to institutions on the internet and social media (about 4 million of this population are said to be very active players already on such electronic/online platforms like: Jumia, Konga, Amazon, etc, while many more are subscribing to the services of e-payment solution companies like Master card, Interswitch, Visa card and e-transact), the country will become open to e-business much more in the new dispensation.

Though, there are concerns about cyber-risks and that the cost of compliance with cybercrimes Act will raise overhead costs for businesses in terms of training, research and capacity development, benefits of security, reliability, automation integration and increased profitability in the long-run make compliance worthwhile. In any case, doing business in Nigerian cyberspace is set to experience improved confidence and increased transactions.

## NOTES

1. Excerpts from *Cybercrimes Act of 2015*.

2. Report presented by the Chairman of the Nigeria Electronic Fraud Forum (NEFF), who is also Director Banking and Payment System Department, CBN, Dr Dipo Fatokun during the Forum's Annual Dinner, 2015. Quoted in *Businessday*, Monday 18 January, 2016, p. 31.

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AN EXPLORATION, ANALYSIS AND REVIEW OF CYBERSPACE AND E-  
GOVERNANCE: CYBERSECURITY, CYBERLAW & CYBERCRIME AS FULCRUM  
IN ICT FOR GOVERNANCE IN NIGERIA

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**Abstract**

*The advent of the Internet and emergence of an ICT-driven Information Society has impacted greatly on the way we live, work, learn, play and run government, organisations, and relate within our country and also worldwide within a global village. This paper explores cybersecurity, cyberlaw & cybercrime within a cyberspace concept and information society context. It reviews Cyberlaw Development in Nigeria with respect to achievements, Challenges and Opportunities as relevant to ICT for Governance. It analyzes Cybercrime Act 2015 in Nigeria in terms of its substance and inadequacies within the notion of civil wrongs (CyberTort). It discusses Cybersecurity/Information Security in terms of technologies, management, policy, regulations, standards & guidelines; progress status in Nigeria as applied to e-Governance in the areas of Cybercrime, E-Fraud, Cyberterrorism (by State and Non-State actors). It concludes with a highlight of recommendations in programme, policy, regulations and standards relevant and applicable to ICT for Governance in Nigeria.*

**Key Words:** cybersecurity, cyberlaw, cybercrime, cyberspace, cybertort, national security, cryptography, encryption, digital signature, electronic signature, e-government, e-governance, governance, ICT, CUCEN, information society, internet, security mechanism, security services, jail term, fine, cybercrime advisory council

**1.0 Introduction – the Dimensions of Cybersecurity and Cyberlaw (ICT) for Governance in Nigeria**

The advent of the Internet and emergence of an ICT-driven Information Society has impacted greatly on the way we live, work, learn, play and run government, organisations, and relate within our country and also worldwide within a global village (Oloniteru, 2015). While the main theme of the CUCEN 2016 is “*Information and Communication Technologies for Governance in Nigeria: Achievements, Challenges and Opportunities*”, this paper explores its subtheme



Cybersecurity and Cybercrime and discusses principally, cybersecurity, cyberlaw & cybercrime (with special attention to electronic/digital signature law as mentioned in the Nigeria Cybercrime Act 2015) within a cyberspace concept and information society context – looking at cybercrime, its detection and prevention (and the key elements of the Nigeria Cybercrime Act 2015); cyberware, terrorism; cryptographic technologies (in particular electronic & digital signature); and data protection mechanism.

### ***What is Cyberspace?***

The main thrust of this paper is cybersecurity and cybercrime/cyberlaw. It is important to start by defining or putting forward first, what cyberspace is. This is necessary because it is on it that such other terms like cybersecurity (security of cyberspace), cybercrime (crime committed within, in or using/through cyberspace, or *where elements from/or of cyberspace are used to commit the crime Rajnovic (2012).*), cyberterrorism (terrorism carried out using or through cyberspace), cyberwar (warfare conducted in the cyberspace, using cyberspace or through cyberspace), cyberlaw (law related to online, Internet related activities, governance, regulations and use of cyberspace, nationally or globally) etc are based or derived. Many of these terms are effectively contained in the Nigerian Cybercrime Act 2015, the Terrorism Act, 2011 and its 2013 Amendment among others. There is also reference to electronic and computer generated documents in the Evidence Act, 2011 especially section 84 under admissibility of electronically generated evidence. These are issues of cyberlaw and cybersecurity, which is a focus of this submission.

Below I have provided some definitions from three recognised entities/organizations or sources – governments or their agencies, industry standardization bodies/organizations and dictionaries. From dictionary sources, a look at Merriam-Webster's Learner's Dictionary, which is available Merriam-webster.com; cyberspace is defined as "*the online world of computer networks and the Internet*".

From standard organizations side, while ISO/IEC in its ISO/IEC, ISO/IEC 27032 Guidelines for cybersecurity (DRAFT), 2011, defined cyberspace as "*the complex environment resulting from the interaction of people, software and services on the Internet by means of technology devices and networks connected to it, which does not exist in any physical form*"(ISO/IEC, 2011). ITU on the other hand say cyberspace from a cyberenvironment perspectives. It stated, its ITU-T Recommendation Rec. ITU-T X.1205 (X.cso), 2008 that "*technologies, such as wireless networks and voice-over-IP (VoIP), extend the reach and scale of the Internet*". And in that regard "*the cyber environment includes users, the Internet, the computing devices that are connected to it and all applications, services and systems that can be connected directly or indirectly to the Internet, and to the next generation network (NGN) environment, the latter with public and private incarnations*". Further, it noted "*with VoIP technology, a desk telephone is part of the cyber environment*" and however, that "*even isolated devices can also be part of*

*cyber environment if they can share information with connected computing devices through removable media”.*

ITU then conclude in its definition that *“the cyber environment include the software that runs on computing devices, the stored (also transmitted) information on these devices or information that are generated by these devices”* and that *“installations and buildings that house the devices are also part of the cyber environment”*. This is a really long and very inclusive definition of cyberspace, which can form the basis and foundation on which cybersecurity, cyberlaw and e-government apply.

Finally, we look at the concept of cyberspace from government/agencies’ sources, we have for instance, the USA - in the United States, National Security Presidential Directive 54/Homeland Security Presidential Directive 23, 2008, *“Cyberspace is defined as the interdependent network of information technology infrastructures, and includes the Internet, telecommunications networks, computer systems, and embedded processors and controllers in critical industries”*. It then stated that *“common usage of the term also refers to the virtual environment of information and interactions between people”*. The United Kingdom on its part in its UK Cyber Security Strategy, 2011 stated that *“Cyberspace is an interactive domain made up of digital networks that is used to store, modify and communicate information”* and that *“it includes the internet, but also the other information systems that support our businesses, infrastructure and services”*.

In Nigeria, it is not clear if there is a standard definition of cyberspace in either its official documents or provision in its law. At least, from the Cybercrime Act 2015, no such definition was provided just as electronic signature was mention but not defined. With the above definitions, we are now able to do justice to the subjects of cybersecurity and cyberlaw/cybercrime and how it is necessary for governance in Nigeria.

### **What is a Computer?**

According to the Nigeria Cybercrime Act 2015, under its interpretations, a computer is said to mean *“an electronic, magnetic, optical, electrochemical or other high speed data processing device performing logical, arithmetic, or storage functions and includes any data storage facility”*. It stated also that *“all communication devices that can directly interface with a computer through communication protocols shall form part of this definition”* and further that *“this definition excludes the following; portable hand-held calculator typewriters and typesetters or other similar devices”*. By the above definition, it follows that devices such as mobile phone (smart or otherwise), switches, routers, modems, hubs, intrusion detection system (IDS), intrusion prevention systems (IPS) and firewall devices etc that can directly interface with a computer through communication protocols are computers. There are some legacy systems that computer (desktop, laptop etc) do interface with using its serial port and connection; and today via USB (universal serial board) ports, are therefore computers.

The above definition helps to address the nature of cybercrime, through which devices such as crime or acts can be committed and hence their prevention, protection and prosecution. It also helps in practical understanding of cybersecurity issues.

### *What is an Information Society?*

An information society is a post-modern society that is information and communication technology (ICT) based, Internet-driven, interconnected (by combination of tangible and intangible entities, and data/information oriented) in a cyberspace environment. The definition of cyberspace is already well situated earlier. The cyberspace environment includes hardware, software, information system, network, people, and all other infrastructure that support interactions among users and the various systems and entities within the cyberspace.

## **2.0 Information/Cybersecurity: Cryptography – Encryption, Digital Signature Technologies and Standards**

Information Security is more than just cybersecurity, which is at its simplest form can be taken as security of the cyberspace. In cyberspace, all its elements must be interconnected. Physical security for instance and security of information in non-virtual environment, in isolated systems, policies, procedures, standards & guidelines, people and other ICT infrastructure elements falls under the purview of information security in addition to all issues involved in cybersecurity. In relation to this paper, not all cybersecurity elements will be discussed. This paper is focused on cryptographic technologies with emphasis on encryption and electronic/digital signature that are relevant to the review of Nigeria's Cybercrime Act, 2015 and other supporting cyberlaw Acts such as Terrorism (Prevention) Act, 2011, its 2013 amendment and Evidence Act, 2013 and others.

### *What is Cryptography?*

Cryptography is a branch of mathematics that deals with, and involves the science and technologies of hiding information. It has foundation in the mathematics of Number Theory, which makes use of the subject of Modular Arithmetic. There are two main areas in cryptography, which are 1) Symmetric Key Cryptography that involves use of one key, which is a secret key and known only to the two parties or entities involved in a communication session or exchange; and 2) Public Key Cryptography also known as Asymmetric Cryptography, which involves use of two keys – one that is a public key and the other a private key, which must be kept secret.

The process of applying a cryptographic key whether of the symmetric or asymmetric cryptographic types on a message to get a ciphertext is referred to as encipherment. A message is data that is readable with meaning while a ciphertext is one with reasonable meaning. A

cryptographic primitive is a mechanism that is applied on a message to achieve one or more security goal(s) or objective(s).

In public key cryptography on the other hand, say in a digital signature scheme, two keys will be required in addition to the use of encryption. One, there is a signing key and the two there is a verification key. Through some mathematical formula and computation based on module arithmetic, the private key of a message's sender and the public key of the receiver are combined and used to sign a message. It follows that when the receiver/recipient of the message uses his own private key and the public key of the sender, through similar modular arithmetic computation, the digital signature is verified. There are standards already well established and used for the implementation of a digital signature scheme, one of which is RSA. Also, there is Digital Signature Standard (DSS) that has been developed (USA Standard) for use in digital signature scheme. An example of a digital signature scheme application is PGP (Public Good Privacy). In cryptography, there is further need to understand the concept of, and nature of cipher systems. I will discuss briefly two such systems here. One is called Stream Cipher and the other Block Cipher.

The goal by discussing the above cipher systems is to establish and highlight how tampering with these ciphers affect the security (say integrity) of a message or data at rest or in transit and hence why cryptographic security mechanisms – primitives are required to provide needed security service. A block cipher for instance may contain number 73 in two blocks of the cipher system (which are represented as strings of data – unreadable binary digit of zeros and ones). Without knowing which number is there in the block, an attacker or a malicious third party may change the position of the cipher (strings of data) from 73 to 37 or remove the strings in a block from it altogether so that 73 becomes 7 or 3. If it is a student's score in an examination for example, such a student will be graded "F", which is fail instead of an "A", which is a distinction pass. In the same way, if it is budget figure of a country's government – federal or state or any of its agencies, an amount of N73m Naira can be changed to N37m Naira and vice versa. Imagine if this were to be someone's account in a bank and the consequences that will follow. This is why cybersecurity is very important in ICT for Governance.

With the above knowledge, how can we frame our policies, regulations and law (cyberlaw) to take note of, and have notions of the workings of these cybersecurity – cryptographic technologies and details? How can we ensure in Nigeria that provisions of our Cybercrime Act 2015, the (Electronic) Evidence Act and other related laws capture the notion of these technologies and hence be enacted in such a way as to help prosecutors nail and convict offenders? It is just not enough for the Act to put burden of proof of an offence on the prosecutor otherwise many criminals, albeit, cybercriminals will go free unpunished. With sound knowledge of knowledge of cryptography, cryptographic technologies and their applications and other cybersecurity technologies – smartcards, biometrics etc, it becomes easy for specific ICT/Cyberlaws to be made and properly referenced to one another. For example, there should be



proper referencing of the NIMC Act to the e-Evidence Act, to the EFCC Act, to future E-Voting Act, future E-Commerce Act, etc as cybercrime can be committed by an attacker trying to change election results in an e-voting scheme or programme (like use of Direct Recording by Electronic, DRE system, m-voting and Internet voting systems) including conduct of a denial of service (DOS) or distributed denial of service (DDOS) attack.

At this points, we can now appreciate why the law programme curriculum of our law training institutions – Nigerian Law School, Faculties of Law in our various universities etc have to be enhanced to include vagaries of courses not only in ICT/Cyberlaw but fundamentally also in information/cybersecurity; cryptography & security mechanisms; standards & evaluation criteria; smartcards, tokens & applications; Internet Governance; telecommunications law and spectrum policy & regulations; Legal Aspect of Electronic Commerce & E-Commerce technologies; Data Protection & Privacy Law etc so that our law graduates (that will become future Attorneys – prosecuting & defence lawyers, magistrates and judges that will adjudicate on cybercrime, e-transactions, data protection and privacy cases among others) and those in computing disciplines will be able to perform their functions with high and right competences to aid ICT for Governance in Nigeria.

### ***What is an Encryption?***

Encryption is a security primitive used to achieve confidentiality service. It involves use of an encryption key that is applied on a message to get a ciphertext. The same key, now called a decryption key is also applied on the ciphertext to get back the message. This is an example of a symmetric key cryptographic technology application. There are standards well established for the implementation of an encryption scheme such as Digital Encryption Standard (DES) and Tripple DES (3DES) with wide use and application in the financial services industry, banks, governments.etc.

Encryption scheme is based on algorithms, encryption algorithms to called ciphers systems such as stream ciphers and block ciphers. There are many other types of ciphers systems depending on the mathematical algorithm used to design the scheme.

*Stream ciphers are an important class of encryption algorithms. They encrypt individual characters (usually binary digits) of a plaintext message one at a time, using an encryption transformation which varies with time. On the other hand, block ciphers tend to simultaneously encrypt groups of characters of a plaintext message using a fixed encryption transformation. Stream ciphers are generally faster than block ciphers in hardware, and have less complex hardware circuitry. They are also more appropriate, and in some cases mandatory (e.g., in some telecommunications applications), when buffering is limited or when characters must be individually processed as they are received. Because they have limited or no error propagation,*



*stream ciphers may also be advantageous in situations where transmission errors are highly probable.*

Apart from encryption standards such as DES and 3DES, there are also advanced encryption standard (AES), which was designed by Daemen and Rijmen and originally called Rijndael with Block size of 16 bytes or 128 bits and Key size of 16 bytes or 128 bytes. Key sizes of 192 bits and 256 bits also define.

### ***What is a Digital Signature?***

In this section, digital signature will be discussed from cryptography standpoint. This is distinct from electronic signature as generally understood outside cryptography or cybersecurity school/class. However, in the cyberlaw section in this paper, discuss will be made on both digital signature and electronic signature as defined or interpreted in various national laws or as enacted in different countries' Act of parliament or national assembly.

Menezes et al (1996) provides brief definitions of digital signature and its related terms and use in cryptography. They stated that *“a digital signature of a message is a number dependent on some secret known only to the signer, and, additionally, on the content of the message being signed”* and posited further that *“signatures must be verifiable; if a dispute arises as to whether a party signed a document (caused by either a lying signer trying to repudiate a signature it did create, or a fraudulent claimant), an unbiased third party should be able to resolve the matter equitably, without requiring access to the signer’s secret information (private key)”*. They identified further many applications of digital signature in information security, which include authentication, data integrity and non-repudiation. They stated further *“one of the most significant applications of digital signatures is the certification of public keys in large networks”* and that *“certification is a means for a trusted third party (TTP) to bind the identity of a user to a public key, so that at some later time, other entities can authenticate a public key without assistance from a trusted third party”*.

From the above, it is clear that digital signature is a replica of handwriting signature in electronic form with many applications in cybersecurity, business and e-government. Therefore, it is not to be confused with electronic signature scheme that are not based on cryptographic technologies and principles.

### ***Data Protection Mechanism***

What is data protection?

To deal with the idea of data protection mechanism, it is important to know upfront what sort of protection data requires. From an information/cybersecurity perspectives, and in particular, cryptographic standpoint, data or an information should be protected for 1) confidentiality 2)

integrity 3) non-repudiation and others, which due to the nature of this conference, which is not entirely technical will not be discussed in this paper. Using the above three items, they are required as services. Data protection therefore is protection for these services. Data protection mechanisms are therefore ways, technologies and means of protecting data for the above stated services. The services are called ‘security services’ that is ‘data security services’ while the means for protecting them are referred to as ‘security mechanism’ or ‘data security mechanism’.

In cryptography, these security mechanisms are also referred to a ‘cryptographic primitives’. The table below shows the various data security services and some of the security mechanism/primitives that can be used to protect the services or achieve their protection s

**Table 1: Data Protection – Services and Security Mechanisms/Primitives**

S/n	Security Service	Security Mechanism /Primitive	Comment
1	Confidentiality	Encryption	Digital signature can also provide confidentiality service; though encryption is easier to achieve this
2	Integrity	Message Authentication Code (MAC)  Hashing	Digital Signature can also be used to provide data integrity
3	Authentication: a) Data Origin Authentication b) Entity Authentication	Message Authentication Code (MAC)  Hashing	Digital Signature can also be used to provide authentication of data
4	Non-Repudiation	Digital Signature (DS)	



### 3.0 Cyberlaw: Cybercrime Act 2015, Electronic Signature and Other Provisions

It is important to state here that cyberlaw or ICT law is more than just cybercrime law. Cyberlaw includes laws such as e-Commerce law, telecommunications law & regulations (that contains spectrum policy & regulations), liability in the information society, intellectual property law, Internet Governance, electronic/digital signature & e-transaction law, e-voting law, social media law, data protection & privacy law and many others. The key issue is that cyberlaw is not just about criminal activities and punishment. However, based on the direction of this paper, the focus is on the review and analysis of the Nigeria Cybercrime Act 2015 and its import in respect of ICT for Governance in Nigeria.

#### ***Review and Analysis of Nigeria Cybercrime Act 2015***

The Nigeria Cybercrime Act 2015 is one of the cyberlaw/ICT law related Act that have been passed by Nigeria's National Assembly. The Act is titled "Cybercrimes (Prohibition, Prevention, ETC) Act, 2015. In the Act's explanatory memorandum, *"the Act provides an effective, unified and comprehensive legal, regulatory and institutional framework for the prohibition, prevention, detection, prosecution and punishment of cybercrimes in Nigeria"*. It stated further that *"this act also ensures the protection of critical national information infrastructure, and promotes cybersecurity and the protection of computer systems and networks, electronic communications, data and computer programs, intellectual property and privacy rights"*

#### **Key Elements of the Cybercrime Act 2015**

The Act provides a number of key elements that aid proper and effective understanding of the law and its support for governance in Nigeria.

##### **Objectives**

Under Part I, Object and Application of the Cybercrime Act, its objectives (Section 1) include that it: (a) Provides an effective and unified legal, regulatory and institutional framework for the prohibition, prevention, detection, prosecution and punishment of cybercrimes in Nigeria; (b) Ensures the protection of critical national information infrastructure; and (c) Promotes cyber security and the protection of computer systems and networks, electronic communications, data and computer programs, intellectual property and privacy rights.

##### **Application**

Application of the Act is dealt with under section 2 where it stated that this *"Act shall apply throughout the Federal Republic of Nigeria"* meaning its primary country of application is Nigeria where its courts will have jurisdiction.

##### **Other Key Elements**

There are other key elements of the Act, which includes a) *Designation of certain computer systems or networks as critical national information infrastructure*, which was provided for under section 3, Part II of the Act; b) *Audit and Inspection of critical national information infrastructure*; c) *Offences against critical national information infrastructure, Section 5, Part III*. Punishment for offences committed range from 10 to 15 years imprisonment without an option of fine depending on the type of offence committed; d) *Unlawful Access to Computer Section 6*. Subsection 1 – 4 of the section provides for various punishment of up to 5 to and up to 7 years imprisonment and fines of up to Five Million Naira (N5,000,000) and Seven Million Naira (N7, 000,000) or a combination of any of the above punishments and fines respectively; e) *Registration of Cybercafé – Section 7*. Subsection 7 (1) to 7(3) provides for registration of all cybercafé in Nigeria with both Nigeria Professionals’ Registration Council as a business concern and registration of business name with Corporate Affairs Commission (CAC). It provides for punishment for non-compliance, which range from a jail term of 3 years or fine of One Million Naira (N1,000,000) or both for the perpetrator (user of the cybercafé) and 3 years imprisonment or fine of Two Million Naira (N2,000,000) or both for the cybercafé owner when found to have connived with the perpetrator. Burden of proof of connivance is however placed on the prosecutor (subsection 7(4)).

Other elements of the Act are: f) *System Interference, Section 8*. Prison term of 2 years or fine of not more than N5,000,000 or both are provided for offenders that unlawfully, without authority interfere with proper functioning of computer system; g) *Intercepting Electronic Messages, Emails Electronic Money Transfers – Section 9*. There is provision of 7 years imprisonment for a first term offender and 14 years imprisonment on the second offence. This section made no provision for option of fine; h) *Tampering with Critical Infrastructure – Section 10*. This section specifically provides punishment, jail term of 3 years or fine of N2,000,000 for employees of local governments in Nigeria, private organization or financial institution that tamper with critical infrastructure and electronic mails they are working with, which they are not authorized by virtue of their contract of service or intentional permit. The problem with this section is the exclusion of employees of states and federal government and their ministries, departments and agencies; of foreign governments – embassies, high commission, trade mission (of the diplomatic communities) and international agencies operating in Nigeria.

Furthermore, i) *Willful misdirection of Electronic Messages – Section 11*. There is provision of 3 years jail term or fine of N1, 000,000 or both for this act; J) *Unlawful interceptions – Section 12*. Subsection 12(1) provides for punishment and fines for offender who intentionally and without authorization, intercept by technical mean, non-public transmission of computer data, content or traffic data, which include electromagnetic emission or signals from computer, computer system, network carrying or emitting signals to and from other computers, computer system or network. A jail term of not more than 2 years or fine of not more than N5,000,000 is prescribed. Subsections 12(2) and 12(3) prescribe punishment for offenders, which concerns inducement by false pretence and hiding & detention of messages, which is not meant for him or he is

authorized to be in possession of. Messages in this category include electronic mails, messages, electronic payments, debit and credit cards or their information, facsimile messages. Jail term of 2 years or fine of N1,000,000 or both for offence committed under subsection 12 (2) and jail term of 1 year or fine of N 250,000 for offence committed under subsection 12 (3).

Other key elements still, of the Cybercrime Act 2015 include; j) *Computer Related Forgery – Section 13*; k) *Computer Related Fraud – Section 14*; l) *Theft of Electronic Devices – Section 15*; m) *Unauthorized modification of computer systems, network data and System interference – Section 16*; n) *Electronic Signatures – Section 17*; and o) *CyberTerrorism*. Section 17(1)(a) for instance provides thus “*Electronic Signature in respect of purchase of goods or any other transaction shall be binding*”. The import of this is that electronic signature is being introduced to Nigeria laws for the first time or so through an Act of the National Assembly.

### ***Electronic Signature***

The provision for electronic signature in the Cybercrime Act 2015, Section 17 is very welcome and an attempt in the right direction though vague and not in dept. The section does not define what electronic signature is and type of electronic signature intended. Is digital signature covered here or intended mainly here. Digital signature for instance is a specific type of electronic signature that utilized cryptographic technologies. On the other hand, there are many types of electronic signatures (like scanning of handwriting signatures) that do not meet the requirements of a cryptographic digital signature. It would have been more appropriate if the Act also first define what a signature is. There is also need to establish what a signature is and how it is referenced and interpreted in different legal system i.e. in common law and civil law jurisdictions (UK, US in the former and Germany, China in the later). Attempt is therefore made in this section of the paper to deal with the electronic signature and invariably digital signature concept with a view to throwing more light into its importance and while it should be properly dealt with in the Cybercrime Act and other laws as it may be through an amendment or future enactment.

The use of electronic signature, in particular digital signature is central to efficient and effective implementation of the Cybercrime Act 2015 especially as the burden of proof is placed on the prosecutor. How can you establish for instance data origin authentication? How can a prosecutor ascertain that a document or an electronic message originates from the person in question in an e-fraud or cybercrime case without the use of digital signature that provides non-repudiation service? How will issue of addressed in different legal system around the world that involves transnational crime or cyberterrorism? There is a great impact of the type of legal system practiced in different jurisdictions around the world on the way the concept of signatures are treated and in particular electronic signature (Oloniteru, 2011). As Spyrelli (2002) rightly noted: *The security in the electronic transactions over the Internet is regarded as one of the most crucial issues in the digital world. Since 1996, both international and supranational organisations on governmental and business level have been trying to promote the use of*



*electronic signatures in the electronic commerce and set forth a common legal framework for electronic authentication over the Internet*<sup>98</sup>

Oloniteru (2011) posited that:

*For businesses conducted electronically there is need to have such contracts entered into by concerned parties signed electronically and this is where the legal issue and status of electronic signature become a subject of debate both within the legal communities and also among technologists, governments, legislators, policy makers, businesses and citizens*

Within the international arena for instance, electronic and digital signatures have been variously defined and coded in their respective laws such as: UNCITRAL Model Law, U.S. - Electronic Signature in Global and National Commerce Act (ESIGN); U.S. - Uniform Electronic Transactions Act (UETA) - adopted by 48 states in the USA; U.S. - Digital Signature And Electronic Authentication Law (SEAL); U.S. - Government Paperwork Elimination Act (GPEA); U.S. - The Uniform Commercial Code (UCC); Canada - Uniform Electronic Commerce Act (UECA); UK - Electronic Communications Act 2000 (chapter 7); Europe - EU Directive for Electronic Signatures (1999/93/EC); Europe - EU VAT Directive and China - Electronic Signature Law of the People's Republic of China. All the above laws explicitly dealt with the subject matter of electronic signature /digital signature. In the EU Directive for Electronic Signature for example, there is provision for Standard Electronic Signature and also a provision for Advanced Electronic Signature (which under observation seems to meet the requirements of a digital signature).

While The Uniform Electronic Transaction Act<sup>99</sup> (UETA) defines an electronic signature as “*an electronic sound, symbol, or process attached to or logically associated with a record and executed or adopted by a person with the intent to sign the record*”, the UNCITRAL Model law, an electronic signature was defined as “*data in electronic form in, affixed to or logically associated with, a data message, which may be used to identify the signatory in relation to the data message and to indicate the signatory’s approval of the information contained in the data message*”. It is obvious that the definition provided under the above law is quite different from that envisaged for digital signature from a cryptographic view point. So, the Nigeria Cybercrime Act must clearly and explicitly define the electronic signature it intended such that there is no ambiguity in interpretation when it reaches the courts.

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<sup>98</sup> Spyrelli, C, ‘Electronic Signatures: A Transatlantic Bridge? An EU and US Legal Approach Towards Electronic Authentication’, *The Journal of Information, Law and Technology (JILT)* 2002(2) <http://elj.warwick.ac.uk/jilt/02-2/spyrelli.html>. The above paragraph is an extract from Spyrelli’s abstract for the Transatlantic Bridge Article.

<sup>99</sup> The Uniform Electronic Transaction Act is an e-Signature Act enacted in the United States of America and a law, which has been adopted by many states in the country.

Other elements included in the Cybercrime Act 2015 include: Exceptions to Financial Institutions, Posting and authorized options (Section 19), Fraudulent issuance of E-Instructions (Section 20), Reporting of Cyber Threats (Section 21), Identity theft and impersonation (Section 22), Child pornography and related offences (Section 23), Cyberstalking (Section 24), Cybersquatting (Section 25), Racist and xenophobic offences (Section 26), Attempt, conspiracy, aiding and abetting (Section 27), Importation and fabrication of E-Tools (Section 28), Breach of Confidence by Service Providers (Section 29), Manipulation of ATM/POS Terminals (Section 30), Employees Responsibility (Section 31), Phishing, Spamming (Section 32 (1-2)), Spreading of Computer Virus (Section 32(3)), Electronic cards related fraud (Section 33), Dealing in Card of Another (Section 34), Purchase or Sale of Card of Another (Section 35), Use of Fraudulent Device or Attached E-mails and Websites (Section 36). All the above offences have various jail terms and fines attributed to them in the various sections.

#### **4.0 Cyberlaw and Cybersecurity in Nigeria: Achievements, Challenges & Opportunities**

##### ***Electronic Governance: Intersection of Technology, Law & Policy***

Earlier, we have defined the various terms such as technology, law and policy that are relevant to the theme under discuss. In this section, we attempt to highlight the facts that intersection of technology, law and policy has effect on electronic governance and governance for development generally, which is applicable to Nigeria. At the core of this section are standards and guidelines. Many times, stakeholders' lack of understanding of and the relationship among these various terms and elements have consequence on e-governance. To demonstrate this, I consider a theoretical implication and practical import of an application of one intersection of technology, law and policy which must rely on standards and guidelines and hence how it might affect electronic governance.

Consider a situation that involves implementation of a digital signature scheme to provide confidentiality, integrity and non-repudiation services in a communication exchange between the President of a country and the leadership of its National Assembly (Parliament), which is the Senate President and Speaker of the House of Representatives in the case of Nigeria. In the communication exchange, the President sends the 2016 Appropriation Bill to the National Assembly leadership electronically using a Digital Signature Scheme. The purposes of using Digital Signature (DS) include:

- Prevention of recent experience of manually delivering the 2016 Appropriation Bill to the National Assembly leadership where it was observed that the said bill was missing!
- Prevention of compromise of Integrity of the Appropriation Bill where it was observed
- End-to-end information assurance including prevention of repudiation of communication, transaction (sending and receipt of messages, documents) among the sending and receiving parties

First, it must be understood that there is difference between electronic signature and digital signature. Lack of clarity in this regard was evident in the use of electronic signature technology in Nigeria's Cybercrime Act 2015 under Part III – Offences and Penalties, Section 17 subsection (1)a where reference was made to acceptance of electronic signature. The section stated that *“electronic signature in respect of purchases of goods, and any other transactions shall be binding”*. It went further to place proof of the originality of the electronic signature on the contender. Subsection 1(b) stated specifically that *“whenever the genuines or otherwise of such signatures is in question, the burden of proof, that the signature does not belong to the purported originator of such electronic signatures shall be on the contender”*.

While the intent of this provision is well understood, it is however deformed by lack of clear definition of electronic signature, what it means and implied in the Nigeria Cybercrime Act 2015 for ease of proof in court. The use of electronic signature in cyberspace activities – transactions, communications etc is a typical example of the intersection of technology, law and policy. Electronic Signature is both a technology and legal concept, which must be explicitly defined and implementation clearly stated. The law must be certain as to whether electronic signature or digital signature is intended. Furthermore, section 17 (2) a – h excluded some items from the list of categories that electronic signature will not apply to. In particular, it provided thus

The following transactions shall be excluded from the categories of contractual transactions or declarations that are valid by virtue of electronic signature:

- (a) Creation and execution of wills, codicils and or other testamentary documents;
- (b) Death certificate;
- (c) Birth certificate;
- (d) Matters of family law such as marriage, divorce, adoption and other related issues;
- (e) Issuance of court orders, notices, official court documents such as affidavit, pleadings, motions and other related judicial documents and instruments;
- (f) Any cancellation or termination of utility services;
- (g) Any instrument required to accompany any transportation or handling of dangerous materials either solid or liquid in nature;
- (h) Any document ordering withdrawal of drugs, chemicals and any other material either on the ground that such items are fake, dangerous to the people or the environment or expired by any authority empowered to issue orders for withdrawal of such items

It is good to note that the items exempted above are exactly the items that electronic signature and in particular, digital signature should apply to guard against falsification and fraud in the issuing process of birth certificates, death certificates, court orders, notices and documents such as affidavits and in modern case of land administration and management in the issuance of certificate of occupancy (COO) that is electronic certificate of occupancy (e-coo). Today, in Nigeria, a number of court affidavits are wrong or to put it rightly, Nigerian courts have become institutions that helped to legalize corruption. How do our courts verify, authenticate and validate

declaration of age affidavits issued by the courts? We know without doubts that a number of Nigerians declared ages that are not their actual age. Also, people can obtain birth and death certificates without there being a mechanism or system driven approach to ascertain their originality or genuineness. Now, imagine a situation where our courts are required to authenticate applicants' age with the National Identity Management Commission (NIMC)'s Identity Database using the applicant's National Identity Number (NIN) before an Age Declaration Affidavit is used by a court. This procedure will involve the use of electronic signature of the digital signature type with the advantage that integrity of the age data declared, authentication of the applicant's entity (entity authentication) and non-repudiation of the exchange/communication between the courts and NIMC. This approach is also valid for the communication and exchanges between Nigeria's President and leadership of the National Assembly (Parliament) in the delivery of the 2016 Appropriate Bill and its receipt.

### *ICT for Governance in Nigeria: Achievement, Challenges and Opportunities*

In this paper, the aspect of ICT under consideration is cybersecurity and cyberlaw. Therefore, achievements, challenges and opportunities provided in this section will be mostly limited to the subtheme – cybersecurity and cyberlaw.

#### **Achievements & Opportunities**

Modest achievements have been achieved in this area as provided below:

- Passage of a Cybercrime Act in Nigeria in 2015, which deals with cyber security issues, detection of cybercrime, prosecution and conviction of offenders
- The Cybercrime law provides a framework for cyberspace governance and regulations
- The Cybercrime Advisory Council established through the Cybercrime Act provides opportunities for improvements to the Act, by ways of their advisory function, which is useful in future amendment of the Act
- Existence of a Nigerian Communication Commission (NCC) Act of 2003, which establishes the NCC as the regulatory agency of the Telecommunication Industry/Sector in Nigeria. This sector has contributed immensely toward Nigeria becoming the largest economy in Nigeria (post re-basing of the economy). NCC has enacted a number of regulations by virtue of the power conferred on it by the Act for the development of the industry
- Enactment of a Terrorism (Protection) Act, 2011; Enactment of Terrorism (Protection) (Amendment) 2013 and Existence of a National Security Strategy for Nigeria
- Enactment of a National Information Technology Development Agency (NITDA) Act, which establishes NITDA as an agency for the development of Information Technology in Nigeria in terms of policies, regulations, programmes



- Establishment of Galaxy Backbone Plc and NigComSAT Plc as government network infrastructure providers that have help jump start government entrance and growth in the e-government space
- Establishment of the Economic and Financial Crime Commission (EFCC) through an Act of the National Assembly, which helps Nigeria to fight economic and financial crime, electronic fraud (e-fraud) etc in the cyberspace and to be further enhanced with the Cybercrime Act 2015

### **Challenges**

There are many challenges left to be addressed to have ICT for governance in Nigeria achieved and in particular to have effective security of our cyberspace. These challenges include but are not limited to:

- Inadequate Cyberlaw/ICT related laws such as lack of self-contained a) Electronic/Digital Signature Law; b) E-Commerce & Electronic Transaction Law; c) Social Media Law; d) Data Protection & Privacy Law; f) Others
- Lacuna and lapses in existing Cybercrime Act.
- Lacuna and lapses in existing Evidence Act with particular reference to acceptance of Electronic Evidence in Nigeria Courts. Current acceptance of e-evidence is limited, digital forensic methods are still not properly included, same for advanced ICT technologies that will make proving cases in court more straight forward
- Inadequate and very insufficient manpower in the field of Cybersecurity and Cyberlaw to help in the areas of policy making, policy design, ICT Law legislations, ICT technologies implementations (such as setting up and running of Certification Authorities (CAs), Public Key Infrastructure – PKI, development of Cryptographic Protocols etc),
- Inadequate law curriculums of our Law Schools in terms of ICT Law/Cyberlaw/Internet Law & Policy and Cybersecurity contents to produce ICT Attorneys, competent magistrates and judges with bias for ICT and advanced technologies needed in an information society; who can interpret adequately and professionally newly enacted laws – Cybercrime Act, Evidence Act, NCC Act, Telecommunications Regulations etc in line with intent of the framers of the laws
- Disproportionate access to ICTs and the Internet by majority of Nigerians. Issues with Universal Access and Universal Service to ICTs

### **5.0 Cyberterrorism and National Security**

The Center for Strategic Studies (CSS), Galilee Institute (GIMI), Israel noted that “*National Security is a composite concept*”, It identified some of its salient aspects to include:

- i. The population – its size, pattern of dispersal and birth and death rates
- ii. The territorial configuration of the state – size, climate, topography and borders
- iii. National assets – natural resources, infrastructure and industrial capability
- iv. The society – its cohesion, moral strength, morale, and degree of stability



- v. The government – its character, legitimacy, style of leadership and formal pattern of rule
- vi. The economy – capital, financial returns, rate of growth and potential for development
- vii. International standing – power of deterrence, foreign relations (overt and covert) and military and/or political treaties

It stated further that “*Survival is the motivating force behind national security considerations and is a basic, objective value common to all nations*” and that “*A nation’s strength is measured in terms of its ability to mobilise the physical and human resources at its disposal*”. National Security is therefore quite different from National Defence, which refers to the Military. In the CSS (2013) documents, it observed that the military as a national defence entity is “*an entity quite distinct from the system that upholds national security*” and that “*the danger of confusing the two is very real, especially in countries that hold the military in disproportionately high esteem*”. And this seems to be the case in Nigeria as the Cybercrime Act 2015 was mostly sponsored by the Office of the National Security Adviser (ONSA), which is headed by a retired military officer, albeit, with contribution from some non-military organization.

As noted above under a State or Nation’s Asset, traditionally, these assets have a notion of Air space, Water Way and Land Space hence the usual Army (Land), Navy (Water) and Airforce (Air Space). Today, the advent of Cyberspace has changed the entire dynamic with a nation’s major assets in cyberspace due to the emergence of an ICT-driven Internet Economy. A nation’s cyberspace now has to be protected (cybersecurity), which is now a major consideration in national security strategies. Future wars and deterrence are most likely to be fought in the cyberspace rather than in the physical space including possibility for certain nations to want to achieve digital colonisation of others.

### ***Equivalency of Cyberspace to the Other Spaces (Land, Air and Water)***

It is important for countries, nations, states and their citizens to begin to understand the concept of cyberspace and relate it to the type of more space (with the military in charge of its defence) they are used to or know about, which is land, Water and Air space (manned by the Army, Naval and Air forces respectively). The cyberspace must therefore be understood as such as nations must begin to under the need to defend their cyberspace (digital territories), which must be noted under their national security strategies, policies and frameworks. However, the type of equipments and resources required to defend the cyberspace of a country is more knowledge-based and knowledge-oriented, involving more of integration of the nation’s asset in military and civilian resources than mere use of military in the traditional defence of a nation’s territorial integrity.

Therefore, an understanding of emerging cyberspace concepts and terms such as cyber-terrorism, cyberware, cyberweapon, cyberwarfare, cyberforce, cyberdefence & national cyberdefence and cyberoffensive capabilities

### **Terrorism & Cyber-terrorism**

Terrorism today is no longer about physical terrorism but also include one carried to the online environment (cyberterrorism), which can be either state sponsored or sponsored by non-state actors such as transnational and within-nation's terrorism group and organization. Cyber-terrorism must therefore be addressed within a comprehensive national security framework and strategy. Cyberterrorism include all actions ranging for coordinated Distributed Denial of Service (DDOS) attack, to hacking of sensitive, protected and productivity information infrastructure. An example is the cyber-incident on Ukraine's power grid and control system. In Nigeria, a Terrorism (Prevention) Act, 2011 and Terrorism (Prevention) (Amendment) Act, 2013 have been passed to address this issue and crime.

### **Terrorism (Prevention) Act, 2011 and Terrorism (Prevention) (Amendment) Act, 2013**

The Amendment Act, 2013 amends the 2011 Act and makes provision for extra-territorial application of the Act and strengthens terrorist financing offences and for related matters. Section 2 (a) (1) for example prohibits all acts of terrorism and financing of terrorism. The interesting thing is that the Office of the National Security Adviser (ONSA) in Nigeria has responsibility for coordinating a counter-terrorism strategy for Nigeria and also coordinating implementation of the Cybercrime Act 2015. There is no doubt that relationship exist between cybercrime and cyberterrorism both in the area of exchanges of information, unlawful access to computers, networks and information system and electronic transfer of funds (legally and illegally) and e-fraud (financial)

## **6.0 Conclusion**

In this paper, I have looked at cybersecurity and cyberlaw as infrastructure requirements and building blocks for ICT for Governance with focus on Nigeria. Infrastructure is necessary to e-government and e-governance. It includes hardware, software, networks, processes, procedures, policies, standards, protocols, security, regulations & law and people necessary to operate and manage an e-government/e-governance system. I have looked at the intersection of technology, policy and law by focusing on electronic/digital signature (of the cryptographic type and technology) as a main cybersecurity element and at the same time as element of cyberlaw with focus on the Nigeria Cybercrime Act 2015 where provision was made for it without details. As a result, the lacuna and inadequacies in our Cybercrime Act were identified.

The connection between cybercrime and cybersecurity were also highlighted as the Act made provision for cybersecurity and link to the Nigeria's Terrorism (Prevention) Act, 2011 and its 2013 amendment. Specific elements and provisions in the Cybercrime Act were discussed ranging from objectives, applications, penalties for offenders in respect of various offences indicated in the Act. Achievements identifiable in the Cybercrime Act 2015 and other ICT

related laws in Nigeria such as NCC Act 2003, NITDA Act, EFCC Act, NIMC Act etc were highlighted as necessary components in ICT for Governance in Nigeria. National Security was also discussed, differentiated from National Defence, and in relation to cybersecurity within cyberspace concept and information society context. Some achievements and opportunities of ICT for Governance from cybersecurity and cyberlaw perspectives were noted and their challenges such as inadequate manpower with sufficient knowledge of cybersecurity (cryptographic technologies and use) and cyberlaw (such as electronic/digital signature laws, digital forensic technologies and use in electronic evidence & reverse engineering procedures etc) were highlighted.

This paper also clarifies misconception between security services and the security mechanisms (cryptographic primitives & technologies) used to provide such services i.e. encryption for confidentiality service and digital signature for integrity and non-repudiation services. Other primitives and the kind of security services they provide were mentioned. And issues related to standards and guidelines in the implementation of a security service using appropriate security mechanism such as in a digital signature scheme (i.e. signing before encrypting or encrypting before signing) was brought to focus though they achieve the same security objective(s) but are legally distinct with different legal interpretation and consequence.

### ***Recommendations & Suggestions for Improvements in the Enabling Cybercrime Act, 2015***

The following recommendations and suggestions are made to make the Cybercrime Act 2015 more useful and responsive to purpose:

- The Act need to clearly define what electronic signature is under the Act. The Act should define separately whether just any electronic signature is intended or digital signature that is based on cryptographic technologies and schemes
- If Digital Signature based on cryptographic technologies and schemes in the intent then there should be either a separate electronic/digital signature passed or this Cybercrime Act 2015 is amended to contain its details as a schedule to the Act
- There is need to pass separate law on civil wrongs (CyberTort) that will address damages such as when government or its agencies commit cyberwrongs (i.e. destruction of critical information (ICT) infrastructure that belongs to another tier of government
- Laws related to use of Digital Forensic technologies needed to be passed and linked to the cybercrime, terrorism (prevention) Acts in such manners that it makes it easier for offenders to be convicted. The Nigeria Evidence Act, 2011 need to be further amended especially section

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