

Challenges to e-government implementation in developing countries. Nigeria case Study

Sampson Aneke

*Cardiff Metropolitan University
Cardiff. CF5 2YB. United Kingdom
okeyaneke@gmail.com*

Dr. HumayunBakht

*Cardiff Metropolitan University
Cardiff. CF5 2YB. United Kingdom
humayunbakht@yahoo.co.uk*

Dr Amare Desta

*London South Bank University
London SE1 0AA. United Kingdom
destaa@lsbu.ac.uk*

Abstract

The rapid development in ICT industry and the increase in Internet usage around the world enabled some governments to provide e-services for citizens with the aim of improving service delivery, increasing citizen participation, and reduce cost of governance. E-government as a platform offers a large opportunity for improved service delivery. E-government promises lots of advantage in governance process but at the same time requires efforts for changing process, building infrastructures, capacity enhancement etc. Employing e-government to improve efficiency and effectiveness of public service delivery in government structures is one facet of economic sustainability. However, the introduction of e-government is about a radical change and re-engineering within government agencies and the relationship between government and its citizens. Hence the implementation of e-government requires important political, cultural,

organizational, technological and social issues which must be considered by any government considering its implementation.

This paper presents an assessment of key factors that affect the implementation of e-government system in Nigeria using the Institutional Theory. Semi-structured interviews were conducted and used in this study to collect the data. The results of this study show that the most significant challenges and factors influencing the implementation of e-government services in Nigeria are related to corruption in public office, budgeting and financial costs, human expertise, resistance to change, technological issues, lack of IT professional in public offices, data privacy and security, the legal framework, lack of IT infrastructure, limited Power supply, administrative obstacles. Conclusions, recommendations and future work are stated at the end of the paper.

1. Introduction

The importance of the use of information and communication technologies (ICTs) to improve the efficiency, accountability, and transparency of government processes, achieve better public service delivery, and empower citizens by enabling them to participate in the decision-making processes governments through the acronym e-governance can never be over emphasised.

Chen et al (2006) stated that e-government is a perpetual assurance made by government to improve the relationship between the private citizen and the public sector through enhanced, cost effective, and efficient delivery of services, information and knowledge. Therefore, ICT can improve public sector performance, improve service delivery, enhance transparency and accountability in public sector along with providing effectiveness in their interactions with citizens and businesses.

Governments around the world are promoting the provisioning of the best possible services and practices to perform its day-to day activities, especially in the government agencies that have direct interaction with citizens. The utilization of the latest technologies is vital to reduce the time required by processes to the minimum, aiming at improving the relationships with citizens by providing

more effective and efficient services (Kuldeep, 2012). Burroughs (2009) found that about 77.4% of people in search of government information or services first use online resources such as Google, Yahoo, or other commercial search engines. Many governments around the world are introducing e-government as a means of reducing cost of service delivery, improving services for citizens and increasing effectiveness and efficiency in the public sector.

Successful e-government aims to improve service level relationships between government and its stakeholder groups such as citizens, businesses, and other government agencies (UN 2008; Stoica and Llas, 2008). Heinze et al (2005) stated that e-government is based upon the nature of relationships among governments, citizens and technology. E-government requires a fundamental change in the whole public sector structure, values, culture and the ways of conducting business by utilizing the potential of ICT as a tool in the government agencies.

The introduction and implementation of e-government is about a radical change and re-engineering within the government and about the relationship between a government and its citizens. Hence, the implementation promotes important technological, cultural, social, citizen participation

and organisational re-engineering which must be considered and handled carefully by any government considering its implementation especially in developing countries.

However, despite its widespread acceptability, there are growing concerns about the failure rate of e-government projects across developing countries

Findings of several studies indicate that despite high costs of e-government projects, both tangible and intangible, many e-government efforts are failing or are slowly diffusing (Al-Shehry 2008). According to Al-Shehry (2008), the failure rate of e-government projects has been estimated to be high. For instance, according to a recent research regarding e-government projects in developing countries, almost 35% of projects are total failures, 50% are partial failures, and only 15% are successful.

According to report by Gartner (2002), more than 60% of e-government initiatives around the world have failed or fallen short of their objectives. These statistics therefore confirm the belief that governments face enormous challenges when developing e-government, because there is still great uncertainty as to whether a large number of projects will be affected by major problems or result in total failure.

The aim of this paper is therefore, to investigate the key issues affecting the implementing e-government in developing countries

using Nigeria as a case study; and recommend how those issues can be resolved. The rest of this paper is organised as follows: the next section is literature review where we discussed related work together with e-government implementation in Nigeria. Section three is Challenges to E-government Implementation in Nigeria, we highlighted key technological and organisational challenges, followed by Discussion/Analysis, where remedial actions for successful implementation of e-governance in Nigeria were discussed. Finally, conclusions and recommendations for further research and practice are presented.

2. Research Background

World Bank (2015) defined developing countries as a country which their national income per capita is less than US\$11,905, most of the Africa countries are categorized as developing countries, according to World Bank (2015), from the official government statistics released 6 April, 2014, indicated that Nigeria is in the Lower-middle-income country which is categorized as developing country. World Bank (2015) revealed that the total Population of Nigeria is 182,202,000, Million. Nigeria, which is the most populous country in Africa, is composed of more than 250 ethnic groups; the most populous and politically influential are: Hausa and the Fulani 29%, Yoruba 21%, Igbo (Ibo) 18%, Ijaw 10%, Kanuri 4%, Ibibio 3.5%, Tiv 2.5% (Cia.gov, 2018). The official language is English, with three other major languages: Hausa, Yoruba, Igbo (Ibo), and over 500

additional indigenous languages. Only three Religion are practice in Nigeria including Muslim 50%, Christian 40%, indigenous beliefs 10%.

The introduction of e-government in Nigeria was aimed in 2000 during the third republic. The establishment and implementation came up in 2003 during the preceding OlusegunObasanjo (Asogwa, 2012). The government continued to seek for strategies and policies on important infrastructure to make the continual usage by the government and the citizen of Nigeria. The main aim of the government is to implement the use of e-service among the government levels, department and agencies to communicate and interact with e-government. In 2003 government was set up the National Information Technology Development Agency, (NITDA) under the Ministry of Science and Technology (MoST) to champion the advancement of the innovative technology in Nigeria and to implement the national IT policy. The NITDA was set up to manage the Nigerian e-government service with their responsibility to design the policy which could lead to successful implementation of e-government in Nigeria. The NITDA was introduced National e-government Strategy Limited, (NeGSt), a Public-Private-Partnership (PPP) as a special purpose vehicle (Choudrie, Umeoji, and Forson 2012).

Adeyemo (2011) found that the essential point of utilization of e-government in the undertakings of the state is to advance great administration, which is defined as sharing in the vote based democracy,

transparency, and responsibility in the different segment of the countries' economy. E-government developed on the premise of the upset in ICT which discovers expression in innovative technology, for example, mobile phone, computer, internet network and differences of electronic applications. In addition, Nigeria government have tried and utilized many methods to support and improved the level of ICT in the country.

Despite the effort of the government to implement the e-government service to their system, Nigeria still ranks as low among the other countries adopted the use of e-government in the world. As indicated by e-government development index ranking, Nigeria was ranked 141 out of 193 countries using e-government around the globe. Similarly, the report from the Ministry of Communication Technology (2015) revealed that the use of mobile Internet increase from 45 million to 72 million from 2011 to 2014. Teledensity grew from 68 to 96 in the period of 2011 to 2014. Internet participation increased from 26.5 to 52 percent between 2011 to 2014.

The United Nations (2014)e-government development index reported that Nigeria human development was 152 out of 187 countries in Human development, the result show that the development of the human from the government to the citizen is very low compared to other countries while the Human Development Index at 0.381 which is below the requirement of human development

index. (United Nations e-government reports, 2014).

2.1. Literature Review

Oni, Okunoye, & Mbarika, (2016) in their work evaluated e-government Implementation in Nigeria and discovered that only twenty three (23) states and the federal capital territory have dedicated websites, which means only 68% of Nigerian State Government is online. They evaluated their websites based on three categories: Content, Function, and construction index (Oni, Okunoye, & Mbarika, 2016). While their work highlights poor state of e-government services in Nigeria, their work only examined website content and did not address the fundamental challenges to e-government implementation in Nigeria.

Quinta and Sirajul(2013), investigated the challenges to the successful implementation of e-government initiatives in Sub-Saharan Africa and listed some challenges to e-government implementation which include: Poor ICT Infrastructure, Financial constraints, organisational challenges, Political challenges, Human; and Infrastructural challenges.

However, their work is also based on only secondary data which does not reflect the true situation. They did not proffer solutions to their findings.

Weerakkody, El-Haddadeh and Al-Shafi (2011) investigated various factors that influence e-government, in developing country such as Qatar,

under the broad themes summarized in: political, social, technological, and organizational contexts. These themes can be synthesized and captured in a conceptual model as key factors that need to be considered when studying e-government and its implementation barriers.

Ahmad, Markkula and Oivo (2013) explored the factors that affecting e-government adoption in Pakistan. The study findings show that performance expectancy, effort expectancy, facilitating conditions and social influence are the factors that affect the user's adoption of e-government services in Pakistan. Furthermore, the results show that lack of awareness, user data privacy, lack of appropriate support and assistance hamper the process.

Nabafu and Maiga (2012) outlined a number of requirements for successful implementation of e-government in Uganda. These requirements include financial resources, building ICT infrastructure, citizen training and sensitization to relevancy and benefits of e-government, and social political factors. The study identified these requirements and steps for successful implementation of local e-government projects in Uganda to follow.

Mundy and Musa, (2010), uses benchmarking activity to investigate the content analysis of state government websites in Nigeria and comparison to equivalent provision of council websites in the UK. In addition, they investigated e-government services requirements using survey targeted at citizens was to determine from a citizen

perspective the present need for and evaluation of e-government services across Nigeria and the UK. Their research content analysis findings demonstrated significant shortcomings with existing state government websites in Nigeria with only 30% of websites analysed providing basic mechanisms for citizens to interact with government services. Their analysis of citizen requirements found that there was a high level of expectation in relation to the provision of e-government services and also found that the Nigerian citizens surveyed were more engaged with the benefits that e-government could bring to their nation.

While their work highlights some challenges to e-government implementation in Nigeria, they investigation of e-government implementation challenges should be carried out with those responsible for e-government implementation to understand empirically their major challenges in implementing e-government system.

In order to explore the practical issues affecting e-government implementation in Nigeria, semi-structured interviews were conducted with key government employees responsible for e-government implementation, and ICT providers in Nigeria.

This research studies was based on findings from the following public sector organisations in Nigeria: National planning Commission, Abuja; Federal Ministry of Housing, Lands and Urban Development, Abuja; Federal Ministry of Youth & Sport, Abuja;

Enugu State Ministry of Information and Technology, Enugu, and National e-government Strategies (NGeSts).

2.2. Research Method

The qualitative research method, as described by Walsham (1995a), was employed in this study to undertake the government perspective. This included informal, in-depth semi-structured interviews. Within a single case study, interviews were used, facilitated by an interview guide that was developed and used during the data collection process.

In order to explore the practical issues affecting e-government implementation in Nigeria, semi-structured interviews were conducted with key government employees responsible for e-government implementation, and ICT providers in Nigeria.

This research studies was based on findings from the following public sector organisations in Nigeria: National planning Commission, Abuja; Federal Ministry of Housing, Lands and Urban Development, Abuja; Federal Ministry of Youth & Sport, Abuja; Enugu State Ministry of Information and Technology, Enugu, and National e-government Strategies (NGeSts).

3. Challenges to E-government Implementation in Nigeria

Many e-government initiatives are in their infancy phase of implementation, however, some key problems and barriers are already beginning to

emerge. There are a number of barriers experienced in public sector organisations that prevent the realisation of anticipated benefits and degrade successful implementation of e-government projects in developing countries. This section analyses and summarises the identified barriers of e-government implementation in public sector organisations in Nigeria.

3.1. Inadequate IT Infrastructure

Despite the cost of IT going down, an adequate IT infrastructure still represents the key barrier for e-government adoption in Nigeria. The infrastructure is composed of hardware, software, Network, Intranet and extranet, Telecommunications and enterprise applications that will provide secure electronic services to citizens, businesses, and employees. It was observed that lack of technical infrastructure is a significant barrier to the development of government organisations' capabilities to provide online services and transactions.

Most government office still lacks adequate Internet connectivity. Galaxy Backbone have installed Internet connection to most federal government agencies, however, the Internet connection in most cases are limited to the top management officials and not to the other operational staff that deals with the citizens more often. In addition, most state and local government offices in Nigeria does not have the Internet connection from Galaxy backbone, as a result top

government official use broadband modem on their laptop for their work, and other staff including IT staff does not have access to the Internet not even official email account.

3.2. Poor Internetworking

Internetworking is required to enable appropriate sharing of information and open up new channels for communication and delivery of new services. Nigeria suffers from the digital divide, and are not able to deploy the appropriate ICT infrastructure for e-government deployment.

3.3. Organizational Attitude

Some of the Ministries in the country have already taken decisions of not implementing E-government in their ministry. The decision is due mainly to some of the below identified problems and lack of proper orientation on what ICT has for the nation.

3.4. Energy and Power Factors

During the study, it was clearly established that one of the major challenges to e-government implementation is epileptic and irregular power supply. Many government ministries at times doesn't have power for some days. In addition, due to the instability of power supply, some IT infrastructures have been reportedly damaged due to surges in the electricity distribution grid. A stable and regular power supply has been identified as a necessity for good implementation of e-government in Nigeria. Most government agencies operate on generators

and sometimes the generators lack capacity to power adequately the ICT facilities.

3.5. Cost of IT Equipment and Poor Maintenance Culture

The high cost of IT equipment is another identified threat for the implementation of e-government in Nigeria. Many government ministries do not have adequate budgetary allocation for ICT, and some top government management officials consider it unnecessary luxury to invest in IT equipment within their agency

More so, its maintenance culture is so bad that the few that are being procured are abandoned when they experience faults.

3.6. Poor Remuneration for IT Staff

The few skilled IT staff currently in the government agencies are not well paid to compare with their peers in the private sector, hence most IT skilled staff prefer to work in the private sector where their salary is two to three times more than those in the public sector

3.7. Inadequate training and Support for Staff

It is shocking to discover that staff welfare and training is at the lowest level in most government agencies, more especially to IT staff. Professional training for staff is considered as a waste of money in many government agencies. Top government officials prefer to outsource some of the services that requires professional skills which is also an

avenue to inflate the price of those services and make more money. In some cases, they consider training their staff as a threat to the source of additional revenue.

3.8. Low Budgetary Allocations for ICT

Government allocates insufficient amounts of money in budgetary allocations to the development of ICT in public offices in the country. This has therefore, has direct implication in e-government development in Nigeria.

3.9. Lack of Government IT Regulatory Policy

The need for the government to come up with IT regulatory framework is very important. In developed countries like USA, UK, and Canada, their governments have IT regulatory frameworks which assist in implementing of E-government. In Nigeria, the reverse is the case. There is no government position on implementation of ICT policies to assist the nation in developing her ICT framework, and most importantly, ICT in E-government in Nigerian.

3.10. Corruption in Public Office

Corruption in public services in Nigeria is at very high level, and Nigeria ranked at 136/176 most corrupt country in the world (Transparency International Corruption index report, 2016). Corruption and bribery is integral part of Nigeria public office. Since e-government has been identified and proven to be one of the major solutions to reduce corruption in public office, it

was identified that many top government officials strongly oppose to implementation of e-government which they consider as a threat to their corrupt practices. Majority of the public servants are thus, likely to use their positions to frustrate the effective application of e-governance in Nigeria. They will definitely dislike a system that will reduce to the minimum, face to face contact between citizens and government service providers.

3.11. High cost of Broadband

Some government ministries states that they cannot afford the monthly or yearly subscription of broadband service which is still at a high side. Most of the broadband services are either through VSAT or broadband modem which is limited in capacity and costly. There is very poor access to Fibre Optics broadband

3.12. Awareness

The awareness of e-government is very low for both the government staff and citizens. Many government staff have little knowledge about e-government and the services it can provide. Many view e-government as an avenue of making them redundant and therefore oppose every step within their capacity to implement e-government

3.13. Web presence and Poor design

It was observed that many government parastatals do not have a website, few that has website have dummy website that is not interactive or

transactional. Some of the website does not have any application form, contact details, feedback mechanism, or any form of two-way communication. Some state government and state ministries does not have website at all, few state governments that has website does not have their state ministries in their website.

3.14. Resistance to Change

Many government officials view e-government as a complex system that will make them redundant because they are not expecting adequate training on the use and maintenance of the system if implemented, they oppose the implementation of e-government system within their capacity. Some other reasons observed are lack of computer literacy, unqualified staff, many IT staff with little or no training in the installation, maintenance, designing and implementation of ICT infrastructure

3.15. Lack of Qualified IT Staff

It was observed that lack of trained and qualified personnel to handle and operate its infrastructures in government agencies is another major challenges in implementing e-government and delivering e-services. In some cases, IT manager in government agencies does not have any degree related to IT, or does not have any practical IT skills, and in many cases does not have internet connection at his desk, and official email address. It was observed that over 90% of IT staff in many government offices use their private email address for their work.

In addition, many IT staff within government agencies cannot operate the IT equipment in their office due to lack of training and support.

4. Discussion and Analysis

The implementation of e-government in developing countries like Nigeria has to be based on the peculiar challenges of that country for it to be successful, therefore the recommendation of e-government solution in Nigeria has to be based on challenges as identified in field work in Nigeria.

Having identified many challenges that hinder the implementation of e-government services in Nigeria, it is imperative to recommend solutions to achieve a successful implementation of e-governance in Nigeria's public service based on peculiar challenges identified. Some of the major challenges to e-governance implementation in Nigeria's public service, the following recommendations are proposed:

4.1 Geographical Information System (GIS) and e-government

Use of Computerized mapping technologies known as geographic information systems (GIS) will give Nigeria governments new software tools to support the delivery of services to the public based on geographical location. GIS belongs to a family of ICTs that are specifically designed to link information to a geographic location. By using GIS, Nigerian citizens can view information on digital maps organized by political and administrative

boundaries, neighbourhoods, cities, rural areas, regions and states. GIS gives users powerful functions to display, query, and manipulate the data. For example, GIS is widely used to view demographic trends, income levels, voting patterns, pollution levels, traffic on highways, and crime patterns.

Ideally, governments provide services to locations within the jurisdiction of their political and administrative boundaries. As such Nigeria governments are stewards of large databases ranging from information about the demographics, characteristics and activities of its people, communities, institutions, infrastructure, natural resources, and public services. GIS will make it possible for federal, states, and local governments in Nigeria to easily see data on maps. GIS will give governments the tools to integrate many layers of independently collected and managed data, such as roads, pipes, surveys, land records, and administrative boundaries

4.2 E-government consultant/staff for every ministry

Every government Ministries, Departments and Agencies should appoint an e-government consultant/ staff with adequate IT skills that will coordinate with galaxy backbone, National e-governance Strategy Limited (NeGSt), and NITDA and other relevant agencies in charge of implementation e-government in the country.

The appointee will ensure the smooth implementation and application of e-government in that agency and will be a first point contact for any support and in-house training about e-government in that agency. It is expected to alleviate some challenges due to resistance to change and inadequate training and support within government agencies. The appointee will also act as Monitoring and Evaluation consultant within the ministry and feedback to the e-government agencies to enable them provide tailored services to the particular ministry.

4.3 ICT Law

The government at all level enact ICT laws that will make practical computer literacy a compulsory aspect for every public or civil servant both at the local, state and federal levels. The government can adopt the European Computer Driving Licence exam as a compulsory exam for all public service. This will ensure that they can at least perform basic operations like emailing, Microsoft Word, Excel etc at their work places.

4.4 Separate power line to government ministries from National grid

There should be a special power line from the national grid to all the government offices both federal, state and local governments in Nigeria. This will ensure that there is power at all times in government offices which will facilitate the implementation and delivery of e-services.

4.5 Use of Cloud Computing

One of the major challenges in implementing e-government in Nigeria is due to inadequate of ICT infrastructure; Cloud Computing Infrastructure - as-a-Service (IaaS) will alleviate the challenges of investing in high cost ICT equipment's, and maintenance and provide them as a service through world class Cloud provider. Cloud computing will also enable the provision e-services to the citizens without power in the government offices.

4.6 Staff Development and Training

Nigeria government must invest in adequate staff development and training of their staff to ensure that they can operate, respond to e-services requests, and maintain e-government equipment

4.7 Constant update of government websites

IT staff at government offices must be able to update the website of their ministry and ensure that their website is up to date and relevant information on their website are relevant.

4.8 Email Services

Every staff especially those that attend to citizens must have functional official email account that is checked regularly

4.9 Internet connection

Internet connection should not be limited to top government officials, all staff especially those that

deals with public request should have unlimited access to the Internet at work to be able to respond to e-serve requests.

4.10 Infrastructure Development

The development of basic infrastructure to capture the advantages of new technologies and communications tools is essential for implementing e-government. Different access methods, such as remote access by cellular phones, satellite receivers, kiosks, etc. need to be taken into consideration by governments in order that all members of society can be served irrespective of their physical and financial capabilities.

5. Conclusion and future work

The implementation of e-government in developing countries like Nigeria requires a comprehensive strategy that is benchmarked on international best practices and sensitive to the peculiar challenges of that country for it to be successful, therefore the recommendation of e-government solution in Nigeria has to be based on challenges as identified in field work in Nigeria. The utilisation of ICT has the potential to revolutionise how citizens interact with their governments

The success of any e-government system lies with the ability of the majority of the intended users being able to seamlessly use the system, it is therefore paramount that the diversity of users which is peculiar to developing countries like

Nigeria with over 250 ethnic groups are put into considerations. We cannot assume that all the end-users to be homogeneous as in the case of Nigeria where there is very poor literacy in Northern Nigeria. Therefore, the acceptable e-government model cannot consider end-users to be consistent in terms of technology skills and the ability to perform on-line tasks.

Thus, to ensure the verity of homogenous of citizens are capable of adopting and are actually using e-government systems, the government website portal has to incorporate the use of computerized mapping technologies known as geographic information systems (GIS) which will provide new software tools to support the delivery of services to the public based on geographical location, and deliver services based on geographical needs, enable citizens to view information on digital maps organized by political and administrative boundaries, neighbourhoods, cities, rural areas, regions and states.

Further work can focus on investigating factors that influence citizens' intention to use e-government services.

References

1. Adeyemo, A. B. (2011). E-government implementation in Nigeria: An Assessment of Nigerias Global E-Gov Ranking. *Journal of Internet and Information Systems*, 2(1), 11-19.

2. Ahmad, M., Markkula, J. and Oivo, M. (2013) Factors Affecting E-government Adoption in Pakistan: A Citizen's Perspective. *Transforming Government: People, developed and developing countries: An implementation framework and case study, Journal of Global Information Management* ,14 (1), pp. 23-46.
3. Al-Shafi, S., Weerakkody, V., & Janssen, M. (2009). Investigating The Adoption of E-government Services in Qatar Using the UTAUT Model. *AMCIS 2009 Proceedings*, 260.
4. Al-Shery, A., Rogerson, S., Firewherther, N.B. & Prior, M., (2008) E-government: Success and Failure factors : - Saudi Arabia Initiative as a case study
5. Asogwa, B. E. (2013). *Electronic Government asa Paradigm Shift for Efficient Public Services:*
6. Opportunities and Challenges for Nigerian Government. *Library Hi Tech*, 31(1), 141-159.
7. Burroughs, J.M. (2009). What users want: Assessing government information preferences to drive information services. *Government Information Quarterly*, 26(1), 203-218.
<http://dx.doi.org/10.1016/j.giq.2008.06.003>
8. Chen, Y.N., Chen, H.M, Huang, W. and Ching, R.K.H. (2006) E-government strategies in
9. Choudrie, J., Umeoji, E., and Forson, C. (2012). Diffusion of E-government in Nigeria: A Qualitative Study of Culture and Gender. University of Hertfordshire Business School Working Paper (2012)
10. Cia.gov. (2018). *The World Factbook — Central Intelligence Agency*. [online] Available at: <https://www.cia.gov/library/publications/the-world-factbook/geos/ni.html> [Accessed 6 Feb. 2018].
11. Fatile, J. O. (2012). Electronic Governance: Myth or Opportunity for Nigerian Public Administration?. *International Journal of Academic Research in Business and Social Sciences*, 2(9), 122.
12. Gartner, (2006). E-government Program. Gartner Inc Available online at <http://www.yesser.gov.sa>
13. Gartner (2002) GartnerEXP Says a Majority of E-Government Initiatives Fail or Fall Short of Expectations. GartnerEXP, Stamford, CN.

14. Heeks, R. (2008). ICT4D 2.0: The Next Phase of Applying ICT For International Development. *Computer*, 41(6), 26-33.
15. Heinze, N., & Hu, Q. (2005) e-government Research: A Review via the Lens of Structuration Theory. Proceedings of the Ninth Pacific Asia Conference on Information Systems (PACS2005), Bangkok, July 7-10, 891-904
16. Kuldeep. V., Shravan, S., and Amit, R. (2012). A Review of Cloud Computing and E-Governance, *Advanced Research in Computer Science and Software Engineering*, 2(2),185-213.
17. Mundy, D. and Musa, B (2010). Towards A Framework for E-government Development in Nigeria. *Electronic Journal of e-government*, 8(2), 148-161.
18. Nabafu, R. and Maiga, G. (2012) A Model of Success Factors for Implementing Local E-government in Uganda. *Electronic Journal of E-government*, 10, 31-46. <http://issuu.com/academic-conferences.org/docs/ejeg-volume10-issue1-article242?e=1257060/3354387>
19. Nkohkwo, Q. N. A., & Islam, M. S. (2013). Challenges to the Successful Implementation of E-government Initiatives in Sub-Saharan Africa: A Literature Review. *Electronic Journal of e-government*, 11(2), 253-267.
20. Oni, Aderonke A and Okunoye, Adekunle and Mbarika, Victor (2016) *Evaluation of E-government Implementation: The Case of State Government Websites in Nigeria*. *The Electronic Journal of e-government*, 14 (1). pp. 48-59. ISSN 1477-7029
21. Quinta N and Sirajul .I. (2013) Challenges to the Successful Implementation of e-government Initiatives in Sub-Saharan Africa: A Literature Review" *Electronic Journal of e-government* Volume 11 Issue 2 2013, (pp253-253), available online at www.ejeg.com
22. Stoica, V. and Lls, A. (2008) Romanian Urban e-government: Digital Services and Digital Democracy in 165 Cities, Proceedings of the 8th European Conference on e-government 10-11 July 2008, Ecole Polytechnique, Lausanne, Switzerland.
23. Tripathi, B. Parihar, (2011). E-governance challenges and cloud benefit, *IEEE International Conference on Computer Science and Automation Engineering*, 2011, Publisher: IEEE, pp.: 351-354

24. UN (2014). United Nations E-government Survey 2014: E-government for the Future We Want. United Nations Department Of Economic And Social Affairs.

25. UN (2008): E-government Survey 2008, From E-government to Connected Governance,
<http://unpan1.un.org/intradoc/groups/public/documents/UN/UNPAN028607.pdf>256p

26. Weerakkody, V., El-Haddadeh, R. and Al-Shafi, S. (2011) Exploring the Complexities of E-government Implementation and Diffusion in a Developing Country: Some lessons from the State of Qatar. *Journal of Enterprise Information Management*, 24, 172-196.
<http://dx.doi.org/10.1108/174103911111062>
93

27. Worldbank. (2015, SEPT 03). World Bank Data Nigeria. Retrieved 06 26, 2016, from Data Worldbank:
<http://data.worldbank.org/country/nigeria>