Electronic Government and the Future of Digital Age: A Road Map of Nigerian Government (Prospects and Challenges)

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Abstract

E-Government is the adoption for using ICT for carrying out the main functions of the government such as providing products and services to the citizens, maintaining law and order, foreign affairs, defence, and welfare more effectively. E-Government helps mainly to increase the efficiency and effectiveness of the public sector and provide the citizen services in a more friendly and convenient manner. This paper highlighted the electronic government issues, sectors, stage, benefit, e-government in Nigeria and some of the challenges in Nigerian government.

*Keywords***:** E-Government, Digital Age, Government, Prospects and Challenges

1. Introduction

Electronic government or "e-Government" is defined as "the use of information and communication technologies in government to provide public services, to improve managerial effectiveness and to promote democratic values; as well as a regulatory framework that facilitates information intensive initiatives and fosters the knowledge society". Governments use information and communication technologies (ICTs) for the exchange of information with citizens and businesses on topics such as tax compliance, public utility services, as well as vehicle and voting registration. Often, the introduction of e-government services goes along with a change towards a more customer friendly culture. While e-government, per se, is technology neutral, the Internet became an important infrastructure for government services. Online government followed the path of business services and private transactions, which had discovered first the usefulness of the Internet as information infrastructure. Beyond the Internet, other technologies and applications can be used for e-government services,

such as telephones (fixed or mobile), messaging systems (SMS or MMS), fax, biometric identification, smart cards, radio-frequency ID (RFID) chips, as well as television or radio-based government services used to provide disaster warnings, electronic newsletters, education management systems and traffic control systems. E -Government is often associated with government web portals because most governments, national or local, have created web sites and umbrella portals, operating as gateways and guidance to information and services [1].

E-government solutions are prominently represented in efforts to improve the management and efficiency of government information technology resources. As such, e-government can be considered a process, or a means to an end, rather than an end in and of itself. E-government is still in the earliest stages of development and promises to evolve with advances in technology and increased acceptance and trust in electronic communications. The dynamic nature of e-government and its broad sectoral applications may sometimes contribute to a lack of a common understanding of its meaning and significance [2].

According to [3] explained that why government should embrace e-government; among the reasons:

a)   E-government improves efficiency
b)   E-government improves service quality
c)   E-government helps achieve policy outcomes
d)   E-government contributes to achieving economic objectives
e)   E-government can be the major contributor to reform
f)   E-government builds trust between citizens and government.

Moreover, e-government encompasses a wide range of activities and actors, three distinct sectors can be identified, these include government-to-government (G2G), government-to-business (G2B), and government-to-citizen (G2C) [2].

2. Stage of E-Governance

E-government initiatives according to their sector, such projects can also be classified according to their level or stage of development. Although different e-government initiatives strive to accomplish different goals, some observers argue that one of the overarching themes of e-government is to fully realize the capabilities of available information technology in an effort to transform government from an agency-centric, limited service operation into an automated, citizen-centric operation capable of delivering government services to citizens, businesses, and other government agencies 24 hours a day, seven days a week [2]. According to the [4, 5, and 6], explained that E-government globally has adopted five stage models, these are:

a)   Emerging presence

In this stage a country commits to becoming an E-Government player. A formal but limited web presence is established through a few independent government websites which provide users with static organizational or political information.

b)   ***Enhanced presence***

In this stage, a country's online presence begins to expand as the number of official websites increase, with more dynamic and specialized information content that is frequently updated. The interaction is still primarily unidirectional with information flowing essentially from government to the citizen.

c)   ***Interactive presence***

In this stage a country's presence on the internet expands dramatically by entering the interactive mode with access to a wide range of government institutions and services.

d)   ***Transactional presence***

In this stage two way interactions between the citizen and the government is included.

e)   ***Networked (or fully integrated) presence***

This stage represents the most sophisticated level in the online e-government initiatives. It is characterized by an integration of G2G, G2C and C2G (and reverse) interactions. The government encourages participatory deliberative decision making and is willing and able to involve the society in a two-way open dialogue [7].

3. Potential Benefits of E-Government

[8] Explained that e-Government offers a number of potential benefits to citizens. It gives citizens more control on how and when they interact with the government. Instead of visiting a department at a particular location or calling the government personnel at a particular time specified by the government, citizens can choose to receive these services at the time and place of their choice. The accessibility of government services also increases since, despite government's mammoth infrastructure, there are always a limited number of personnel interacting directly with the citizens and waiting times, even on the phone, can be long. The electronic delivery of government services, especially the availability of different forms and the option of electronically submitting them, provides a considerable saving of time and money for individuals. Technology now makes it possible to personalise a website to a point where delivery of services could be tailored to meet the specific needs of an individual, thereby increasing the satisfaction of citizens from government services [9].The adoption and usage of online government services has a special significance for developing countries. Unlike developed countries, the governments of developing countries have an incessant shortage of resources. They are always short of skilled personnel and facilities to provide adequate services to their citizens. The concept of information and service provision by telephone is non-existent in most of the developing countries. A personal visit to the department and face-to-face interaction with government personnel is mandatory to receive any type of service. Getting a form from a government department, so conveniently available online in a number of developed countries and taken for granted, costs citizens of developing countries significant time, effort, money, and

frustration [10]The online delivery of government services could, therefore, tremendously increase accessibility and bring significant time and cost savings to citizens in developing countries. The element of transparency built in the online channel could also alleviate corruption, a serious problem in a number of developing countries. Therefore, e-Government could virtually revolutionise the provision of government services in developing countries. Access to the Internet by citizens is a serious issue but it could be dealt with by providing public access terminals. Canada's effort to provide Internet access through public terminals is regarded as an important step in encouraging e-Government adoption [10]

By introducing e-government services, governments can dramatically reduce transaction costs and improve internal planning mechanisms. Moreover, the introduction of e-government and the integration of services usually require governments to streamline their administrative processes. Streamlining improves efficiency, reduces costs and generates savings, lowering the cost of government services. In some cases, generated revenues may be used to reduce or abolish service fees, or can be reinvested into more sophisticated e-government applications and services. Activities required for e-government provision may have in reducing corruption, increasing transparency and trust in administrations, as well as in facilitating improved citizens' involvement in government. Further, e-government can support democratization (e-Democracy) by enabling citizens to participate in political consultations in real-time and in a cost effective manner [1]

4. Sector of E-Government

E-government encompasses a wide range of activities and sectors, three distinct sectors has been by identified by [2] these include government-to-government (G2G), government-to-business (G2B), and government-to-citizen (G2C).

a)   *Government-to-Government (G2G)*

In many respects, the G2G sector represents the backbone of e-government. Some observers suggest that governments (federal, state, local) must enhance and update their own internal systems and procedures before electronic transactions with citizens and businesses can be successful. G2G e-government involves sharing data and conducting electronic exchanges between governmental actors. This involves both intra- and inter-agency exchanges at the federal level, as well as exchanges between the federal, state, and local levels [2].

b)   *Government-to-Business (G2B)*

Government-to-Business (G2B) initiatives receive a significant amount of attention, in part because of the high enthusiasm of the business sector and the potential for reducing costs through improved procurement practices and increased competition, the G2B sector includes both the sale of surplus government goods to the public, as well as the procurement of goods and services.

c)   *Government-to-Citizen (G2C)*

The third e-government sector is Government-to-Citizen (G2C). G2C initiatives are designed to facilitate citizen interaction with government, which is what some observers perceive to be the primary goal of e-government. These initiatives attempt to make transactions, such as renewing licenses and certifications, paying taxes, and applying for benefits, less time consuming and easier to carry out. G2C initiatives also often strive to enhance access to public information through the use of dissemination tools, such as web sites and/or kiosks.

5. E-Government in Nigeria

The adoption of e-Governance is expected to lead to government services becoming more available to citizens in a convenient, efficient and transparent manner, the three main target groups that can be distinguished in governance concepts are Government (Public/Civil servants), citizens and businesses/interest groups. The impact of ICT in the world today cannot be over-emphasized because it enhances productivity, growth and business performance and it is clear that no country today can hope to be globally competitive without leveraging the power of ICT. The realization of the transformative power of ICT has led Nigeria to adopt e-Governance as a part of government policy. This is gradually resulting in government delivering better services to its publics in a more efficient, cost-effective and transparent manner**.** The Federal Government currently spends close to $1bn on ICT infrastructure and services per annum. However, this spend is in functional or Ministerial silos and largely skewed towards hardware purchases and ICT infrastructure. The realization that savings could be made if such infrastructure is shared by various MDAs led to the creation of Galaxy Backbone Ltd. A government company set up for the sole purpose of providing ICT infrastructure and services to all Federal Government MDAs. The introduction of the "1-Gov.net" project by Galaxy Backbone (GBB) is to ensure that infrastructure and transversal applications are shared across MDAs, resulting in huge savings. This approach to providing shared infrastructure received validation from the highest level in 2013, with GBB winning the United Nations' Public Service award for "the promotion of whole-of-government approaches in the Information Age" [11]

6. E-Government Projects

 [12] and [13] Nigeria has an e-governance development index of 1.02, which is below the UN's benchmark measure of development at an index of 1.62. The emergence of e-governance in Nigeria can be traced to the advent of democracy in 1999. The first real activity in this regard was the development of government websites. These efforts were uncoordinated and only a few agencies with the resources could establish online presence although the government continues to seek policies and strategies that will accelerate the deployment of the necessary infrastructure. In pursuance of this objective the government has established the National Information Technology Development Agency, (NITDA) under the Ministry of Science and Technology (MoST) to champion development of Information Technology (IT) in Nigeria and midwife implementation of the national IT policy.

Moreover, NITDA is also charged with the responsibility of implementing e-governance initiatives using National e-governance Strategy Limited, (NeGSt), a Public-Private-Partnership Some components of e-governance have already commenced in Nigeria e.g. 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 (ePayment), 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. There is therefore the need to consolidate and spread it to other services that have not been incorporated as well as to the rural areas in Nigeria [14]. NITDA maintained that e-governance reduces waste, saves time and encourages simple, moral, accountable, responsive and transparent conduct in the delivery of government services. It will adequately position Nigeria in the global economy where it now pays a key role.

[14] cited the specific goals of e-governance as creation of better business environment for local and foreign investors as technology is a catalyst for increasing productivity and economic growth, Quick response and effective delivery of public services to citizens without bottlenecks, Strengthening good governance with broad based public participation, Improved quality of life for the entire citizenry, Improved productivity and efficiency of government agencies, and job and wealth creation as well as poverty eradication. [14] also stated that the deliverables of e-Governance include; Increased transparency on the part of government, Reduce cost of governance, Potentials of project that create values to investors, Bette services that are faster, cheaper and easier for government, business and the entire citizenry, Better productivity by employers, Wealth and job creation for investors; and Better informed citizens. In an effort to enhance e-governance in Nigeria, the National e-governance Strategies Ltd [15], has been formed to oversee the national e-governance project. It is a partnership between NITDA and the private sector, whose goal is to implement the backbone of the Nigerian e-governance infrastructure. (PPP) as a special purpose vehicle [14] NeGSt's mandate is to drive the development of Nigeria's e-governance initiatives, create a practical strategy and single architecture to guide the evolution of digital government solutions with consistent standards, operating platforms and applications across agencies and government systems [16]. The Federal Government's prioritization of ICT in our national vision is further evidenced by the fact that the government is implementing major changes in its Finance and HR systems. IPPIS: Integrated Personnel & Payroll Information System GIFMIS: Government Integrated Financial Management Information System the huge investments in these projects have delivered significant results in the reduction of payroll cost (IPPIS) and increasing transparency and efficiency of the finance and budgeting process (GIFMIS) – Billions of Naira has been saved since the introduction of these applications [11].

7. Challenges to E-Government

According to [3] explained that Implementation of e-government can face a number of challenges, the following have to be addressed on a whole-of-government basis in order to be overcome:

a) Legislative barriers – e-government processes must have the same standing as paper-based processes
b) Financial barriers – funding arrangements should account for the agencies working together on e-government projects
c) Technology change – adoption of whole-of-government standards, software integration and middleware technologies

d) digital divide – large differences in the level of access to the Internet and therefore ability to benefit from e-government

8. Challenges of E-Government in Nigeria

[17] Confirmed that some of the challenges discussed below are those noticed and encountered while carrying out their study.

a)   *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.

b)   *Energy and Power Factors*

During the study, it was clearly established that the failure of the government to implement E-Government is as a result of irregular power supply. In fact, a few of 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 precondition for having ICT implementation in E-Government in Nigeria.

c)   *Cost of IT Equipment and Poor Maintenance Culture*

The cost of IT equipment is another identified threat for the establishment of E-Government in Nigerian. A PC is considered exorbitant for procurement where the economy is very bad. More so, its maintenance culture is so bad that the few that are being procured are abandoned when they experience faults.

d)   *Poor Remuneration for IT Staff*

The few skilled IT staff currently in the country are not well remunerated, hence they look for greener pastures where they are properly paid for their services. This has contributed to the dwindling number of IT staff currently and in E-Government innovations in the country.

e)   *Low Budgetary Allocations for ICT*

Infrastructures (Weak Commitment) this is another threat for the implementation of E-Government in the country. Government allocates very meager amounts budgetary allocations to the development of ICT in the country. This has limited the scope of government's commitment towards full scale implementation of ICT in Nigerian Corporation Libraries.

f)   *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.

9. Conclusions

The implementation of e-governance requires strong leadership and vision. It also requires a comprehensive strategy that is not only benchmarked on global best practice but also sensitive to existing political and economic realities. There is the need for continuity of Government plans and actions. For e-governance to become a reality, governments in consultation with stakeholders are advised to develop a National strategic framework, which articulates the government's vision, targets and milestones, technical approach and standards for e-governance systems in Nigeria.

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