

**E-GOVERNANCE AND HUMAN RESOURCES
DEVELOPMENT IN NIGERIA'S PUBLIC SECTOR: THE
ROLE OF ICT**

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ABSTRACT: Globally, governments all over the world have implored the use of information and communication technologies (ICTs) in attempt to improve the quality of administration and effective service delivery especially in the public sector. Thus, the development of the human resources (employees) as the most vital aspect of any organization, to explore and man the technological administrative advancement, social change and innovations for quality service delivery, efficiency and transparency becomes very important. The aim of this paper is to examine and expose the role of ICT in e-governance and human resources development in Nigeria's public sector. The study explored secondary data, while actor network theory (ANT) was employed as the theoretical framework. The study holds the view that for effective service delivery and efficient working of e-government in Nigerian public sector, there is need for human resources development through the compulsory implementation of ICT based facilities in our public sectors. The study therefore, recommends that there is need for provision of quality and quantity infrastructure that will improve e-government implementation which will aid effective and quality service delivery. It also recommends that government should enact information and communication technology (ICT) laws that make computer literacy a compulsory aspect for every public or civil servant at all levels of government by ensuring constant training and computer-based development programme, including promoting the use of ICT facilities among its workforce in the public sectors.

Keywords: E-government, Human Resources, Development, Public Sector, ICT, Service

INTRODUCTION

E-governance systems as used by organizations to support all organizational plans and activities can be used to characterize the emergence of E-government for effective service delivery in the public sector. This actually focuses on how well organizations can integrate E-government technology into their internal workings, and it's congruent with organizational adoption of IT (Armstrong & Sambamurthy, 1999). Ekeh(2007) defines e-government as the use of technologies to streamline governmental operations and the distribution of information and services. The term "e-government," which stands for electronic government," refers to the extensive use of online and non-internet applications by governments (Adiele, 2017). E-government encompasses the widespread use of electronics in government, including tracking technologies like RFID tags, surveillance systems, and fax and phone machines and even the use of radio and television to offer the public with information and services relevant to government. E-Government refers to a broader use of ICT to enhance good governance and

encourages citizens to seize opportunities and freely share information. Electronic government, taken as a whole, is a method of conducting business that ushers' society into a stage in which people interact with government more frequently, demand a wider range of services and information, where the need for innovation and entrepreneurship in government is at an all-time high.

E-government is not a one-step process due to various technological, social, organizational, economic, and political aspects as well as the financial resources involved, despite the disparity in the number of stages of implementation and adoption from many scholars and bodies ranging from static website to fully transactional online web portal. Infrastructure, human capital and connectivity are three key needs that E-governance as a development tool heavily depends on (United Nations Department of Economic and Social Affairs, 2012). As a result, there is a need to address specific demands with reference to public sectors. For successful e-government implementation and continuity, organizational human resources must have critical ICT skills. Along with underlying attitudes and motivations, knowledge, skills, and competences are vital for electronic government. The public sector should provide basic and advanced computer training to all personnel. This would allow for the adoption of new programs and reorientation to new work procedures and techniques. LaVigne (2001) asserts that five different types of skills—analytical, information management, technical, communication and presentational, and project management—are necessary for successful e-government. Top management with ICT skills can allocate resources more effectively, support e-government initiatives, and persuade staff to use e-government technologies.

In terms of service delivery and productivity, the purpose of this paper is to analyze the role of ICT in E-government operations and the development of human resources in Nigerian public sectors. The paper is divided into several subthemes, including e-government, the concept of human resources, the development of human resources in the Nigerian public sector, the role of ICT in this development, the role of ICT in e-government, and the challenges that e-government in Nigeria faces, and so forth.

Conceptual Clarification

The Concept of e-government

Electronic government is e-government. Izueke (2010) defined e-government as the use of ICT by the government to communicate information and services with the public, private sector, and other government agencies. E-government, which is also referred to as digital government, online government, or transformational government in some contexts, is a tool that can be used by any organization, public or private, to exchange information and services with customers, clients, businesses, etc. in order to increase internal productivity and service delivery. E-government is defined by the Organization for European Cooperation and Development (OECD) as the use of information and computer technologies to ensure that government actions are transparent, that information and services are accessible, and that the government is responsive to new ideas, demands, and laws. E-government is viewed by the World Bank [2] as the the use of information and computer technology to ensure that government acts are transparent, that information and services are easily accessible, and that the government is receptive to new concepts, demands, and laws. According to the World Bank, e-government is the use of information technologies by government organizations to change how they interact with the public, private sector, and other branches of the government.

E-governance is becoming more prevalent in government processes. It is a result of the widespread clamour for public sector reform with the goal of enhancing service delivery. When a democratic government was established in Nigeria in the 1990s and government websites were created to improve communication, e-government became operational (Choudrie, Umeoji, & Forson, 2012). Since then, the federal government has introduced new policies to promote the use of ICT to educate the public and conduct government operations. Many academics have defined e-governance in a variety of ways. To support government operations and deliver government services, for instance, e-government entails the use of information technology programs. (Fraga, 2002) described e-government as the application of information technologies by government entities for information technologies (including Wide Area Networks, the Internet, and mobile computing) that have the potential to change how government and industry interact with citizens and the general public. These technologies can be used for a variety of purposes, including improved citizen service delivery, improved interactions with business and industry, citizen empowerment through information access, or more effective government administration. Less corruption, greater transparency, greater convenience, income growth, and/or cost savings may result as a benefit (World Bank 2016). E-government is a way for governments to utilize the most innovative data and communication technologies, especially web-based Internet applications, to give people and businesses easier access to government data and services, to raise the standard of such services, and to give people and businesses more opportunity to take part in democratic institutions and processes (Fang, 2002:4). A further definition of e-government was provided by Dawes (2008:86) as the use of Information and Communication Technologies (ICTs) to support public services, government administration, democratic processes, and interactions among citizens, civil society, the private sector, and the state. This suggests that e-government provides better and better opportunity to successfully address the concerns of the citizens that governments represent. In Adiele's (2017) publication *Governance and Public Service Delivery in Nigeria: The Role of Information and Communication Technologies*, Fatile (2012) states that 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.

One can easily infer the following fundamental characteristics of e-government from the aforementioned definitions:

- The technology component of the process
- It is creative in nature
- It provides citizens with better possibilities to participate in government.
- It provides services to numerous clients simultaneously.
- It is democratic
- To deliver services in the public sector effectively and efficiently.

Human Resources Development

In order to improve the knowledge, skills, education, and talents of their employees, human resources development (HRD) offer a wide range of training and development opportunities. The process of human resources development frequently starts when a new employee is hired and lasts the duration of that employee's employment with the company. Many workers enter an organization with just rudimentary knowledge and experience; thus, they require training in order to perform their tasks well. Others might be qualified for the position already, but they

lack information specific to that company. The purpose of HR Development is to provide employees with the knowledge they need to successfully integrate into an organization's culture. Staff training and development is required within the organization in order to prepare the workforce for societal change and make it adaptive in terms of knowledge and skill acquisition.

According to Onah (2008), every executive, manager, or supervisor in public or private enterprise has the responsibility and in fact the binding duty to ensure the development of men and women who have the necessary knowledge and expertise in order to maximize the productivity and efficiency of the organization. The goal is to provide them the ability to contribute fully to the organization's overall well-being and efficient service delivery. Human resources, according to Barney (1995:50), include all of a people or group's experiences, abilities, knowledge, contacts, risk-taking, and wisdom. Using an integrated range of cultural, institutional, and technological factors, human resource management is a unique approach to employment management that aims to generate competitive advantage through the strategic deployment of a highly devoted and capable staff as well as staff techniques (Storey, 1995 cited in Olowu & Adamolekun, 2002). However, according to Frank (1974), managing human resources is "a set of operations in which the organization, the individual, and the job all interact as each evolves and changes."

According to the definitions given above, human resource development refers to the frameworks for assisting staff members in developing their talents, knowledge, and skills, which enhances an organization's effectiveness. Through employee training and career development, it aids firms in developing their personnel, which enhances organizational effectiveness and performance.

Employee perks and opportunities for human resource development may range widely, including:

- Performance management and enhancement
- Staff coaching
- Mentoring
- Planning for succession
- Assistance with tuition
- Organizational growth

The purpose of all facets of human resource development is to create an engaged workforce for the company and give each employee the tools they need to succeed at their jobs while providing services to customers. There are numerous chances for organizations to enhance their human resources both inside and outside of the office. Human resource development can start as soon as a new employee is hired and can be formal or informal.

The following are examples of informal learning:

- Coaching by management
- Mentoring by more seasoned staff
- Working with highly skilled coworkers

Formal development could consist of:

- Classroom instruction
- Academic programs
- Organizational change that is slated
- Internal training conducted by employees or a consultant or facilitator who is being paid

Types of Human Resources Development

When an employee is employed, human resources development typically starts and continues throughout their time with the company. HRD can take many different forms, including compliance training, on-the-job training, work shadowing, textbook or online education, and growth chances.

On-the-job training refers to learning the aspects of a job while one is doing the job. An employee may be familiar with the essentials of the job, but details like which forms to use, where to find materials, and how to utilize the computer systems may necessitate on-the-job training.

Job shadowing. In order to learn the necessary abilities, work shadowing is similar in that the employee watches another employee perform their duties.

Intellectual or professional development; It comprises training programs and seminars on how to perform a job more effectively, as well as college or certification courses.

In order to improve their employees' knowledge and abilities, many businesses make significant investments in their employees' training and development. Although much of this training is now accessible online through webinars and courses, doing in-person trainings or going to training conferences or seminars with other industry experts is still highly frequent.

Additionally, some professionals deliberately enrol in additional training and development programs to position themselves as authorities in their industries. Professional organizations frequently provide its members with opportunities to further their growth, and many of them have specialized certifications that call for substantial training and development in order to earn. The Professional in Human Resources (PHR), Certified Professional in Learning and Performance (CPLP), and Six Sigma certifications are merely a few instances of these HR development types that demand ongoing education, training, and testing.

The Concept of Information and Communication Technology (ICT)

In order to capture, process, store, retrieve, and disseminate information, whether it takes the form of digital data, text, music, or pictures, modern technology is used. Additionally, it is described as "any forms of technology employed in the operation, transfer, and storage of Information in electronic form, including computer technology, communication media, and Connection networks and other crucial communications equipment." The aforementioned makes it abundantly evident that information technology outputs have sparked the growth of numerous industries, including advanced software, which encompasses expert systems, artificial intelligence, databases, Internet, intranet, extranet, email, and remote communications technology.

Information and communications technology (ICT) is an abbreviation for information technology (IT). It emphasizes the importance of unified communications and the integration of telecommunications (telephone lines and wireless signals) and computers as well as the enterprise software, middleware, storage, and audio-visual requirements that are required to enable users to access, store, transmit, understand, and manipulate information. The combination of computer networks, telephone networks, and audio-visual networks over a single cabling or link system is referred to as information and communication technology (ICT). The use of a single unified system of cabling, signal delivery, and management would combine the telephone network with the computer network system under strong economic incentives. Any communication equipment falls under the broad category of ICT, which includes radio, television, cell phones, computer and network hardware, and satellites technologies, as well as the other tools and services associated with them, like video conferencing and remote education. Analog technology, such as paper communication, and any modality that conveys communication are also included in ICT.

Although there isn't a single, agreed-upon definition of ICT, it is generally understood to refer to all hardware, software, applications, and networking elements that work together to enable communication between individuals and groups (such as businesses, nonprofit organizations, governments, and criminal enterprises). Technology for Information and Communication (ICT) Oketunji (2000) defined information technology (IT) as the use of computers and other technologies in the gathering, organizing, storing, retrieving, and sharing of information. On the other hand, Abdullahi (2006) defined information and communication technology (ICT) as the degree of literacy necessary for data collection, processing, and dissemination together with their associated methodologies and management. ICT is divided into two groups consisting of software development, system programming, system maintenance and repair, system network engineering, project management, system analysis, system administration/management, enterprise resource planning, database administration, management information system, internet/intranet applications, web designing, multimedia technologies, etc. of software scientists and hardware engineers (Anujeonye, 2008).

The importance of information and communication technology

The importance of information technology is as follows:

- i. It is considered as a basis for the administrative institutions to build their competitive advantage due to the active and principle role of this technology in the success of these institutions
- ii. It assists institutions in obtaining information required to properly and distinctively perform their works.
- iii. It assists institutions in creating new opportunities of work.
- iv. It works on restructuring institutions' products and services.

Service Delivery

According to Chukwuemeka (2007), the achievement of service delivery goals (performance/output/productivity) of the tasks entrusted to organizations or employees within a specific time frame. It entails carrying out obligations one has agreed to fulfil under the direction of established authorities in order to accomplish predetermined objectives of an organization. Public service delivery, in the words of Oronsaye (2010:31), is "the process of

addressing the requirements of residents through fast and efficient procedures." This suggests that citizens have a crucial role in the delivery of public services because they interact with the government in a way that promptly addresses their requirements. The inference is that because the private sector views the client as "monarch," it will always provide top-notch service delivery, the public should be seen as the "master" and the one who benefits from improved public service delivery (Aladegbola & Jaiyeola, 2016:162).

Service Delivery simply refers to how well a person, unit, or department of an organization carries out its statutory or assigned duties. It is also a way for an organization to assess the input and output level of a single employee or unit, particularly in the area of achieving predetermined objectives or tasks. According to Byars and Rue (2006), service delivery refers to how well an employee performed the duties that were essential to his or her position. El-Rufai (2006) defines service delivery as the level of an organization's and/or employee's performance, output, and productivity in the discharge of their responsibilities within the time, money, and other resources that are available towards the achievement of the organization's overarching goals. The efficiency of service delivery is based on how well personnel meet corporate objectives and pleases customers. However, the researcher views service delivery for the purposes of this study as the accomplishment of goals (performance/output/productivity) of the tasks allocated to companies or employees within a specific time frame. It entails carrying out obligations one has agreed to fulfil under the direction of established authorities in order to accomplish predetermined objectives of an organization. Therefore, the level of service delivery—whether it is efficient or not, effective or not, economical or not, productive or not—depends on how well an organization or its workers carry out their responsibilities and activities in order to achieve predetermined goals (Ezekwesili, 2010). Finally, according to Richardo (2001), employee performance is defined as the successful completion of tasks by a chosen individual or individual, as set and measured by a supervisor or organization, to predefined acceptable standards while efficiently and effectively utilizing available resources within changing objectives. Achieving organizational goals and objectives will result from assuring high employee work performance, which is known as organizational performance.

Theoretical Framework

The term "actor-network" was created by Michel Callon, Bruno Latour, and John Law in the 1980s as a recognition that actors construct networks by fusing social and technical components, and that the components of these networks, including the businesspeople who simultaneously engineered the network, are both constituted and shaped within them. Machine placement in ANT is distinct. It is acknowledged that technologies do not develop under the influence of scientific logic as technological determinism claims. Specifically, technologies do not contain an intrinsic velocity that would let them to move across a neutral social medium as described by Latour (1987). Because they are continuously developed and influenced by our cultures, "our technologies mirror our societies" (Bijker and Law 1992). as a result of the constant shaping and reshaping caused by the interaction of various heterogeneous forces inside the networks. In networks, machines play a similar role to actors as do people.

Actors define their interpersonal interactions through intermediaries; an actor creates an intermediary and frequently imbues it with social significance. As they give their networks form, intermediaries both describe and build them (Callon 1991). They are typically discovered as written materials, technological objects, financial assets, or human abilities.

The theoretical and methodological foundation for the analysis of e-government initiatives as ongoing reform processes is supplied by the analytical framework offered by ANT. E-government projects can be conceptualized, based on the ontological presumptions of ANT, as phenomena in motion that both result from and have an impact on the interactions of many players taking part in an open network of relationships (Cordella, 2009). In order to emphasize the relational character of e-government projects and how many actors can change the projects in a recursive interaction, we build on ANT in this work. This indicates that the paradigm put forth here offers the necessary groundwork for approaching the study of e-government programs in a way that emphasizes their evolutionary aspect. We propose that ANT enables tracking how various actors influence an e-government initiative's outcome and makes these projects "in action" initiatives that evolve over time as a result of interactions between the many actors involved in the project (Cordella, 2011). By concentrating on the processes by which socio-technical networks are produced, maintained, and stabilised, we want to avoid the dualism between technology and society (Bloomfield & Vurdubakis, 1997). This is done by building on the theoretical framework of ANT. This suggests that the effects of ICT on government innovation cannot be defined as a linear result where either technology or institutional arrangements and the legislation drive the course of change and innovation in the context of e-government research. According to ANT, each actor who engages in an interaction not only influences the relationships, but also the interactions recursively shape the nature of the actors. These ontological arguments advocate shifting the analysis's emphasis away from the actor, which can be technology, society, or organizations, and toward the more complicated and ill-defined phenomena of interaction, which ultimately creates actors (Cordella & Shaikh, 2003, 2006). This shift in emphasis alters assumptions about the nature of the entities that make up the phenomenon as well as the interpretation of the phenomenon. The ANT model proposes rethinking socio-technical relationships as a collection of open-ended interactions in which the participants in the socio-technical interplay are not identified before the relationships are entered into. The "relational materiality" of the actors. Actors acquire their form and qualities as a result of their relationships with other actors, according to (Law, 1999) which is formed in and by these relationships. This demonstrates a reluctance to recognize social structures and variations as a fundamental part of the natural order of things.

METHODOLOGY

The paper relied on qualitative method based on logical deduction and analysis of documents. Data were drawn from secondary sources based on content analysis. Also, from institutional and official documents sourced from the internet, journal articles and conference materials.

The Role of ICT in Human Resources Development

Technology is a collection of procedures, methods, equipment, tools, and machinery that are made available by a good or service made of them. Technology is the industry's application of science through consistent, forward-thinking practice and research. A tool developed to innovate information systems and their drawbacks is information technology. The misuse of information technology is typically brought on by inaccurate and poor information system design. The misuse of these systems by users (designers and computer scientists) mostly causes issues and interruptions. Information technology is more of a human-centred idea, strategy, way of thinking, and innovation tool. One of the most important business assessments in today's world is the development, expansion, and preservation of information systems in the IT sector. We can refer to information technology as an information construction culture because it

consists of a number of intelligent and cultural technologies. Therefore, information in IT is an information-based vision without fostering a culture of information construction. Information technology is the combining and connection of various schematics, supercomputers, computers, connections, and practical wiring.

Human resources management is something that can only be attracted, developed, and maintained through a series of organizational actions called human resource management. Development is not feasible without a sufficient, qualified, and motivated workforce working under an effective human resource management program. Despite the ups and downs, Akpan and Udoh (2010) assert that the introduction and development of new information and communication technologies (ICTS) is profoundly and favourably influencing the effectiveness and efficiency of public service in Nigeria. According to Kiragu (2002), new ICTs are eradicating bureaucratic barriers and opening up rare opportunities to enhance the way government business is conducted and the calibre of its services provided to the public by producing new services activities, generating new services devices, and lowering the cost of services. Therefore, deliberate workforce development through the proper use of information and communication technology is required for Nigeria as a country to profit from this new technology and participate in the world that has now become a global village. The primary concerns in any human resource strategy are the organization's anticipated and actual skill requirements, open positions, departmental expansion and contraction, labour market feedback, and the use of computers (Onah, 2008). Information and communication technology, which uses computers, gives a business the ability to perform effective human resources planning, forecasting, auditing, and inventory. Therefore, an organization can identify locations with surpluses and shortfalls in human resources by using ICT. Additionally, appropriate adjustments in the form of transfers, redeployments, and secondments can be made, enabling an organization to allocate and utilize its human resources effectively. All of these can be made easier thanks to the advancement of ICT.

The term "human resources management" (HRM) refers to the processes of hiring, developing, and rewarding a company's workforce. The goal of human resources management should be to make employees competitive by providing ongoing training opportunities for their personal and professional growth. Information and communication technologies (ICTs), including the Internet, mobile communications, new media, and others in the field of human resources, have historically been shown to significantly aid in the fulfilment of the organization's human resources policy. The human resources division of a firm may be significantly impacted by technological advancement. It enables the business to enhance its internal operations, core competencies, target markets, and overall organizational design.

Impacts of ICT on Human Resource Management.

These things are included:

1. Enhancing supervisor services
2. Enhancing management
3. Successful hiring
4. Data administration and evaluation
5. Resources for managing inventory and personnel
6. Cost-cutting through improved performance

7. Human resource management and customer service The reliability of the company's services and the calibre of its customers can both be used to define business progress.

ICT and its challenges in Nigeria

ICT development in Nigeria has experienced a variety of difficulties during the past few years. The number of ICT operators in Nigeria has grown significantly since 1999, as shown by a growth rate of 120 percent in private sector investment from 50 million dollars to over 6 million dollars between 1999 and 2005, according to the country's Self-Assessment Report (2008). The number of telephone lines expanded as a result of this extraordinary growth on an annual basis, reaching a teledensity growth rate of 16.7% in 2000; 46.9% in 2001; 162.5% in 2002; 77.8% in 2003; 153 percent in 2004; and 85 percent in 2005 (APRM) Country Review Report, 2008). The shift in mobile operators' priorities toward the creation of better ICT infrastructure may be responsible for the fall in 2005. As of July 2005, the nation has a teledensity of 15.72, up from 0.49 percent in 2000. All 36 states are covered by fixed or mobile telephony in terms of coverage. Most cell operators have expanded their coverage to extremely rural communities, driven by competition to increase their customer base. The Nigerian government has launched significant communication initiatives costing more than 38.5 billion naira with the aim of bringing telecommunications to rural areas (Idogho & Ainabor, 2010).

Although Nigeria still has a long way to go before reaching international telecommunications standards, all signs point to the nation being on the right track. Only Nigeria has a communication satellite space of its own in sub-Saharan Africa. The Information and Communication Technology (ICT) sector has experienced tremendous growth as a result of the government's privatization and liberalization agenda in the telecommunications industry. The challenge for broadband applications based on fibre optics is currently being widely considered, according to the APRM Country Review Report (2008). When this application is implemented, a wide range of frequencies, typically from audio up to video frequencies, will be supported. It may contain many, separate bands with channels, each of which only utilizes a single band of frequencies. There are other ground-breaking projects in Nigeria's ICT sector. According to sources, existing internet service providers (ISP) are expanding their capacity for coverage while new operators are getting the go-ahead to offer broadband services.

However, there are a number of barriers to ICT adoption in Nigerian human resource development. These include the expense of setting up ICT services, a deficient infrastructure, a lack of competent workers, a lack of pertinent software, and restricted Internet access.

E-Governance Implementation and Training of Skilled Manpower

This is a particular issue in developing nations, where there is always a shortage of skilled workers and insufficient training for human resources has been a concern for years (UNPA & ASPA, 2001). The availability of the necessary skills is crucial for the deployment of e-government to be successful. E-government necessitates technological, commercial, and managerial human capacities. The use of and management of online operations, processes, and customers require technical abilities, as do the implementation, maintenance, design, and installation of ICT infrastructure. Knowledge management programs focusing on employee training are necessary to create and improve the fundamental skills needed for adopting e-government in order to address challenges with human capital development.

The main obstacle to e-governance in the Nigerian public sector, according to Abdel-Fattah and Galal-Edeen (2008), is a shortage of skilled and qualified employees to manage and operate its infrastructures. They go on to say that the government sometimes feels hesitant in the real implementation of e-governance in the public sector due to the high expense connected with the acquisition and training of public workers with ICT skills. Similar to this, Ayo & Ekong (2008) emphasize that the successful adoption of e-governance in the public sector depends on the availability of competent people to manage a variety of ICT services and their applications. They also stated that if e-governance is to become a reality in government organizations, a significant problem that needs to be addressed is the absence of government regulatory policy. According to them, specialists are needed to coordinate and manage the ICT-related infrastructures in order to successfully implement e-governance since without capable employees to manage the infrastructure, purchasing the infrastructures will be for naught (Ayo & Ekong, 2008).

Although e-governance adoption differs among government levels and agencies in Nigeria, there has been an effort to provide a single, national framework for ICT use in governance. The realization that no nation or its government can operate effectively in the information or digital age without using the web and other mobile internet technologies led to the need for using ICT in governance, or e-governance. The Nigerian Federal Government decided that the nation needed to have a national ICT policy because of the significance of ICT in government. Thus, the National Information Technology Development Act, an enabling Act, was passed by the National Assembly in 2007. The Act also established an Agency, which was given the authority to "plan, develop, and promote information technology use in Nigeria" (Olatokun & Adebayo, 2012). With the passage of the enabling act, several government entities started integrating ICTs into their daily operations. But in 2011, the Federal Government established a new ministry called the Ministry of Communications Technology, tasked with accelerating ICT advancement in line with the country's e-governance strategy (Omerie & Omeire, 2014). The ministerial committee on ICT policy harmonization released a draft national ICT policy in 2012 that contained a number of findings and policy proposals. The 2012 National ICT draft policy's main points in relation to e-governance are as follows: - To make e-government programs easier to implement; Develop frameworks and policies, such as an e-government framework and interoperability policies, for the improved development and use of ICT in government. Create and implement ICT training programs for public sector employees in connection with the introduction of e-government and other digital functions within government offices (National ICT Policy, 2012). The Nigerian legal framework governing the use of ICT in governance is built on a number of policies rather than an integrated structure. The National Media Commission (NMC) is in charge of overseeing the Information Policy, while the National Communications Commission (NCC) is in charge of overseeing the Telecommunications Policy. NITDA, which stands for the National Information Technology Development Agency, is responsible for overseeing the ICT policy (Fraser-Moleketi & Senghor, 2011). The initiative to integrate ICTs into Nigerian government operations did not exclude the private sector. By establishing the National e-Government Strategies Limited (NeGST) in 2007, the National Information Technology Development Act also made public-private partnerships an option for the adoption and administration of ICTs in Nigeria (Fatile, 2012). The NeGST was essentially a three-party joint venture, with the government (represented by NITDA), commercial and financial investors, and technology partners each owning 5 percent, 15 percent, and 80 percent of the business, respectively (Omeire and Omeire, 2014). Creating a workable, unified national framework for the adoption and implementation of ICTs in and across government agencies and their clients was the main goal of this strategic

alliance of three partners known as the NeGST. NeGST's website (www.negst.com.ng/index/php/about-us) states that the organization was founded with the goal of "facilitating, driving, and implementing the Nigerian e-government programme within a public-private partnership paradigm." A project to create an online database for teachers in Nigeria through electronic registration was launched when the NeGST was established in 2007. (Omeire and Omerie, 2014).

E- Government and Service Delivery in Nigeria Public Sector

The use of ICT, IT, and other web-based technologies to increase the efficacy and efficiency of service delivery in the public sector is known as e-government or digital government. Governments use the internet and other technical tools to provide services to the general people (Young-Jin & SeangTae, 2007; Bhatnagar, 2004). Using ICT tools, digital government, or e-government, involves computerizing the back and front offices and changing how the public sector operates internally (Liikanen, 2003). To enhance government services, it also entails office automation through internet services and transactions (Huang, 2010). Through open government data efforts, the government may cut back on bureaucracy and become more responsive, transparent, and accountable to the people. Government can become more effective and provide services of higher quality. All stakeholders, including employees, citizens, non-governmental organizations, communities, and enterprises, gain from the successful implementation and use of e-government. Governments all around the world are implementing e-governance to guarantee that interactions between the government and its citizens are efficient, transparent, accountable, and effective. Government agencies at all levels have adopted a variety of ICT strategies in their operations in order to stay current with the constantly evolving landscape of administration and communication. In order to increase stakeholder efficiency and lower governance costs, several governments have invested heavily in the development of ICT infrastructures. (Azemi 2016 citing Kaliannan 2009). An outline for lowering the cost of communication, security, education, and citizen service can be provided by the implementation of e-governance (Gant, 2008). E- Governance goal is to improve the effectiveness and flexibility of providing public goods and services by facilitating contact between the government and the citizens (Nchuchuwe & Ojo, 2015).

The public sector in Nigeria is now fully digitalized, which puts it in a healthy competitive relationship with the private sector for the delivery of high-quality, useful services to the people. Therefore, the Federal Civil Service's use of ICTs improves the nation's competitiveness and responsiveness in service delivery. This trend is heartening and praiseworthy, especially in light of the fact that, prior to the public sector's digitalization of operations and services, the private sector dominated ICT usage in the nation. Automated Custom Data, Electronic Immigration Passport/Visa Application, NIPOST Post Cash, and other projects of a similar nature, according to Nweke (2007b:168–169), are examples of the potential of e-government in transforming public administration for higher efficiency and competitiveness. Mansell and Wehn (1998) contend that e-government is essential for promoting market-driven initiatives as well as for starting the process of capacity building and coordinating the activities of numerous interested parties. Additionally, the use of ICTs in the civil service offers a framework for opportunities to mediate between the service and the citizens utilizing digital information and communication technology. Thus, it suggests that the use of ICTs in the Federal Civil Service results in citizens who are engaged, connected, and informed. ICTs also encourage the interactive sharing of information between citizens and the

government, promoting effective and timely service delivery. Additionally, this aids in bridging the gap between citizens and the government.

Benefits of E-governance in the Nigerian Public Sector

Most governments have recently started large-scale programs using contemporary technologies to advance and improve government operations. In Nigeria, these technologies have enhanced public service delivery and governmental governance. By offering quick access to information transmission, it has also made interactions between public and private entities easier (Moon, 2002; cited in Fatile, 2012). Gianluca (2007) notes that e-governance can have an impact on change in the public sector in three key areas, including the economic, social, and governance dimensions. The economic component focuses on lowering operating costs to improve service delivery capacity, broaden service coverage, raise service quality, improve capacity to respond to challenges related to poverty, and widen revenue-generating opportunities. The social benefits include job creation, enhancing individuals' access to education and health care, as well as the protection and security of their lives and property. The following has been listed as the advantages of e-governance (World Bank, 2016, Transparency International, 2016) to support these claims:

1. Promote the dissemination and execution of government initiatives
2. Enabling the transfer of information between the government and the people
3. Increased accountability and transparency have significantly reduced corruption.
4. Boosts productivity by easing the administrative bottlenecks that plague government operations.
5. Significantly maintains the safety of residents' lives and property.
6. Enhances service delivery, particularly through information sharing between departments and the consolidation of related agencies and ministries,
7. Cuts down on the amount of money, labour, time, and space needed for effective government.
8. Increases people participation in governance while strengthening government's capacity to provide services.
9. By providing new e-governance concepts, contributes to progress, particularly in regard to government operations.
10. Reduces corruption by encouraging transparency, making public data available for review, automating government procedures, limiting officials' discretion, and reducing the amount of interaction that citizens have with gatekeepers to obtain essential services.

Challenges of e-governance in Nigeria

E-governance is typically used to refer to all government operations that involve electronic or digital tools. This shows that information technology is helpful in government functions like governance, health care, agriculture, and education. E-governance in underdeveloped nations has, however, been accompanied with a variety of difficulties and obstructions. Approximately 30% of e-governance projects, according to a 2016 World Bank assessment, failed because they were discontinued before completion, while less than 20% are successful. Even when projects are completed effectively, careless execution might result in subpar results. In some cases, ineffective execution and inadequate regulation may even lead to more potential for fraud and corrupt behavior (World Bank 2016). Following the foregoing, Adejuwon (2012);

Kamar & Ongo'ndo (2007); Abasilim (2015) have summarized the challenges of implementing e-governance in Nigeria as:

1. Insufficient financial resources allocated as a result of financial restrictions and conflicting government policies, which has hindered the introduction of e-government.
2. Due to their poor degree of comfort with change, the majority of public sector professionals had a negative attitude toward the adoption of e-governance. They were ineligible for the installation, maintenance, planning, and deployment of ICT infrastructure due to a lack of computer literacy and knowledge. This implies, then, that as better public service delivery is not feasible as long as these problems are not resolved.
3. Facility insecurity as a result of insufficient staff to oversee ICT infrastructure.
4. A reluctance to give information has led to access-restrictive rules and the development of "empty" government ministry websites that contain unhelpful data.
5. The government's inability to oversee and carry out e-government initiatives that would have facilitated its operations and provided low-quality and insufficient information at the grassroots level.
6. Insufficient staff to monitor ICT programs
7. The inconsistent availability of internet services and high connection costs
8. Many residents are unable to access e-government websites, especially those who reside in rural areas and have low literacy and income.
9. Named the absence of the required infrastructure (electrical power supply, internet connectivity, telecommunications and computer hardware, optical fiber cables) as one of the obstacles to the successful deployment of electronic governance in Nigeria's government institutions.
10. There is a lack of knowledgeable professionals to manage and run its infrastructures.
11. If e-governance is to become a reality in government organizations, a significant issue that has to be addressed is a lack of regulatory policy from the government. Experts are needed to coordinate and manage the ICT-related infrastructures for the effective and successful implementation of e-governance since without capable employees to manage the infrastructure; the infrastructures would be ineffectively purchased.

Findings, Conclusion and Recommendations

Findings

From the above literatures, the following findings were made

1. E-governance has made service delivery easier which is evident in the ways and manner the old methods have been transformed.
2. The role of information and communication technologies cannot be overemphasized in human resources development as new skills have to be learnt to enable the civil servants work effectively in e-government.
3. For effective e-government implementation and operations, there is need for adequate training of personnel, ICT experts and qualified technical staffs to manage operate and maintain e-government infrastructures.
4. Government has not been enforcing e-government laws on its employees.
5. There are still poor infrastructures for a workable e-government in Nigeria public sectors.

6. Nigeria still ranks low in e-government operations in Africa despite its years of adoption.

Recommendations

- 1) There is need to provide the necessary quantity and quality infrastructure that will aid E-governance implementation, which will engender better public service delivery in Nigeria.
- 2) The employees in the public service should be given priority and be seen as the key agent that can both facilitate the successful implementation of e-governance in the public and enhance public service delivery in Nigeria. This can be done through continuous training geared towards their reorientation for better work standard for performance.
- 3) The role of the Federal Government cannot be sidelined in achieving a better service delivery through e-governance implementation especially when it has to do with the budgetary allocation assigned to the ICT sector. By implication, a huge investment in the ICT sector will play a vital role in both ensuring the successful implementation of e-governance and enhancing better public service delivery.
- 4) The government should also enact Information and Communication Technology (ICT) laws that will make computer literacy a compulsory aspect for every public or civil servant both at the local, state and federal levels.
- 5) The federal government must cushion all the challenges confronting e-government in Nigeria for effective service delivery, transparency, accountability and good governance responsive to the citizens.

Conclusion

In order to achieve a successful e-governance programme, government should embark on

Significant transformation in ICT, particularly in those aspects where good governance has not been noticed in the public sector. This could be achieved by facilitating an enabling environment

that will ensure the availability and affordability of information technology across the nation. Also, government should enhance the infrastructural capacity of the public sector to support its services. It is also pertinent to state that for a workable e-government operation in public sector, there is need for human resources development which includes, constant training and retraining of staffs, capacity building programmes, ICT training for employees, compulsory usage of computer for daily activities in the sectors. Therefore the paper advocates, the improvement and successful e-government is dependent on human resources development in the public sectors in Nigeria.

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