

Adoption and Utilization of E-Government in Human Resource Management in Nigerian Public Service: Opportunities and Challenges

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Abstract

This study examines the opportunities and challenges of the adoption and utilization of e-government in human resource management in the Nigerian public service. In doing this, the paper relies mainly on secondary method of data collection which it analyzes using content analysis. Structural functionalism serves as the theoretical framework. The study argues that the utilization of e-government in the Nigerian public service presents a sustainable, effective, responsive and innovative approach to addressing traditional problems of human resource management. However, the study also reveals that e-government initiatives for human resource management in the public service is hampered by many challenges and problems such as lack of e-government infrastructure; challenges of leadership and lack of political will; low e-government skills, literacy and usage; problem of adopting to change; Nigeria's epileptic power supply; problem of digital divide; high cost of ICTs and affordability; Nigeria's low e-readiness; lack of e-government units and functions; inadequate e-government funding by the government; poor institutional governance structure to drive e-government utilization in the public service, etc. The study therefore recommends that the government and all concerned persons/organizations should concisely tackle these challenges vis-à-vis human resource management in the Nigerian public service.

Keywords: Opportunities, Challenges, E-Government, Human Resource Management & Nigerian Public Service

Introduction

The public service is an important and indispensable machinery of government through which public policies are formulated and implemented. In Nigeria, the public service does this by translating the programmes and plans of government into concrete public goods and services for the use of the citizens through its Ministries, Departments and Agencies (MDAs). It is through the public service that government can manage its affairs effectively and efficiently. Indeed, the public service is primarily concerned with public administration and this is the reason why the management of public affairs rests heavily on it. Whatever is the system of government in practice in any country today, the public service is usually designed to be the prime mover or live-wire of the social and economic development of the country.

The public service is made up of the employees or human resources of government, they are the ones responsible for the functioning of government as they implement government policies and programmes and also render related services to the public. Over the years, the human resources of the Nigerian public service have been associated with many maladies and weaknesses. This is the

reason why the public service has been criticized and attacked by scholars and public commentators alike. The public service has been criticized of inefficiency, ineffectiveness, corruption, nepotism and favouritism, chicanery, red-tapism, and secrecy, administrative rigidity, indiscipline, conservatism and lack of patriotism to implement national policies for socio-economic and political development (Nwachukwu, 2014; Nwachukwu, 2011; Olaopa, 2008). The Political Bureau set up by the federal government in 1986 observed that the goals and aspirations of the public service were not properly directed towards improving the general welfare of Nigerians and it had rather mainly served the interest of the bureaucrats and those of capital accumulation of private, local and foreign companies (Political Bureau Report, 1987). Lamenting this state of affairs, President Olusegun Obasanjo noted that:

Government officials became progressively indifferent to propriety of conduct and showed little commitment to promoting the general welfare of the people and public good. Government and all its agencies became thoroughly corrupt and reckless. Members of the public had to bribe their ways through in ministries and parastatals to get attention and one government agency had to bribe another government agency to obtain the release of their statutory allocation (cited in Olaopa, 2008, p.158).

Over the years, successive governments in the country have tried to tackle the ills and problems of the Nigerian public service. They had tried out a number of administrative reforms all in a bid to energize and purify the human resources of the public service so that they can discharge their vital functions effectively and efficiently (Olaopa, 2008). While most of these reforms have been far-reaching and revolutionary at the time of their implementation, observation shows that they have not been able to ameliorate the socio-political, economic and institutional decay that the public service had witnessed over the years (Nwachukwu, 2014).

It is as a result of the foregoing that the Nigerian government decided to embark on e-government initiatives so as to help ensure among other things efficient and quality service delivery, accountability and transparency, and increased citizen's participation in administrative governance. Indeed, e-government initiatives are seen today as one of the panaceas for improving the efficiency, effectiveness and productivity of the public service. It is also a great instrument for ensuring better and speedier public service delivery (Nweke, 2007a; Nweke, 2007b; Nwachukwu, 2014; Nwachukwu & Pepple, 2015a; Nwachukwu & Pepple, 2015b; Nwachukwu, 2018; Wadekar, 2019). According to Karim (2015), e-government is usually introduced as a human resource tool that will enhance public service delivery with the following aims: One, ensure service delivery at the lowest possible time, and if possible, promptly. Two, uphold citizens' rights to information through extensive information flow. Three, save time and labour when processing services. Four, increase the number of clients served through digitization of all information and services. And five, reduce corruption and increase accountability of government officials by ensuring better flow of information and more transparent processes. Given the foregoing background, this paper focuses on the opportunities and challenges of the adoption and utilization of e-government in human resource management in Nigerian public service.

Conceptual Clarifications

Three basic concepts involved in this discussion need further explanations. These are the concepts of e-government, human resource management and Nigerian public service.

E-Government

There are proliferations of definitions of e-government (electronic government) in the literature by scholars, authorities and organizations. The World Bank (2001), defines e-government as government owned or operated systems of information and communication technologies that transform relations with citizens, the private sector and/or other government agencies so as to promote citizen's empowerment, improve service delivery, strengthen accountability, increase transparency and improve government efficiency. Abramson and Means (2001), define e-government as the electronic interaction, transaction and information and exchange between the government, the public (citizens and business) and employees. Ngulube (2007), sees e-government as an innovative attempt to take advantage of ICTs to facilitate the citizens' access to government information and services in order to support social, economic and political development, improve the quality of public services, and provide an avenue for citizens to interact with government institutions and processes in a democratic, transparent and equitable way. The United Nations (2008), defines it as the use of internet technology as a platform for exchanging information, providing services and transacting with citizens, businesses and other arms of government. For the United States E-Government Act of 2002 (cited in Wadekar, 2019), e-government refers to "the use by the government of web-based internet applications and other information technologies, combined with processes that implement these technologies, to enhance the access to and delivery of government information and services to the public, other agencies, and other government entities; or bring about improvements in government operations that may include effectiveness, efficiency, service quality, or transformation". One can see from the foregoing definitions that the central concern of e-government is the provision of government services using Information and Communication Technologies (ICTs). The above definitions of e-government and many other such definitions given by different scholars and organizations in the literature have convergence on the basic concern of e-government, which is the use of ICTs to reinvent the public sector by transforming its internal and external way of doing things and its interrelationships with the citizens and society in general.

The nature of e-government according to Hirst and Norton (1998), encompasses three critical transformation areas and these are: internal, external and relational. Internal e-government refers to the use of e-government to improve the efficiency and effectiveness of internal functions and process of government by interrelating different departments and agencies. Thus, information can flow much faster and more easily among different governmental department, reducing processing time, paperwork, bottlenecks and eliminating long, bureaucratic and inefficient approval procedures. It equally facilitates storing and collecting of data, reduction of labour costs and information handling costs and the speed and accuracy of time processing. External e-government open up new possibilities for government to be more transparent to citizens and business, giving access to a greater range of information collected and generated by government. Relational e-government adoption may enable fundamental changes in the relationships between the citizens and the state and between nation states, with implications for the democratic process and horizontal integration of services to be realized, thereby enabling the integration of information and services from various government agencies to help citizens and other stakeholders to get seamless services. E-government transactions and interactions normally revolve on four groups and they are: government, citizens, businesses and employees (Wadekar, 2019; Nwachukwu, 2014; Ndou, 2004; Riley, 2001). The government is the centre and the other three depend on it. Among these three, the employee is often times not considered as separate. Some researchers consider the employees

as part of ‘government to government’ web of relationship. The four main groups of e-government web of relationship and their characterizations are therefore as follows:

- i. **Government –to-Citizens (G2C):** This allows government agencies to talk, listen, relate and continuously communicate with its citizens, supporting in this way, accountability, democracy and improvements to public services. This interaction between the government and the citizens enhances service delivery and increased citizens’ participation in the policy process of government. The primary purpose here is to make government citizen friendly.
- ii. **Government-to-Government (G2G):** This is a transactional and interactional relationship between government and its agencies and other foreign countries. In these web relations, government depends on other level of government within the state to effectively deliver services and allocate responsibilities. This interaction of government to government enables government agencies and departments to share database, resources and skills that will promote efficiency and effectiveness in public administrative processes.
- iii. **Government-to-Business (G2B):** This is an electronic transaction between government and private business. The aim here is to facilitate and enhance the capability of business transaction between the government and the private sector by improving communications and connectivity between the two parties. The government to business online transaction helps to lower the burden of red-tape in public service delivery. It also helps to provide a congenial environment for businesses to enable them to perform more efficiently.
- iv. **Government-to-Employees (G2E):** This is an interactive and relational cooperation between government and their employees or staff. This relationship promotes team spirit and avail the employee’s opportunity to have access to such information as compensation and other rights and privileges. Government to employees is a strategic and tactical mechanism for encouraging the implementation of government goals and programmes as well as human resource management, budgeting and accounting.

It is pertinent to point out here that the foregoing complex webs of e-government relationship will remain unrealizable if the basic essentials for e-government implementation do not exist. Heeks (2001), has identified these essentials and calls it the three main application domains for e-government. They are: E-administration, which computerizes and automates administrative tasks for the realization of strategic connections among internal processes, departments and functions; E-citizens and e-services, which are required for automated delivery of services, and E-society, which enable relationships and interactions beyond boundaries, public agencies, private sector and civil community in general. The issue here is that e-government will remain a dream if public sector organizations, the citizens and the entire society are not trained, informed and knowledgeable in the e-initiatives. Thus, e-government should be viewed not only as a sector in competition with others for scarce resources, but also as a cost-effective tool to enable all sectors to meet human needs better than through traditional means alone (Nweke, 2007a). It is important to point out here that the foregoing three application domains of e-government should be considered as overlapping and e-government can be found in the overlapping area of these three application domains, demonstrating the complexities and heterogeneities needed to be handled for assuring its success (Ndou, 2004).

Human Resource Management

The definitions of human resource management abound in the literature. Human resource management has been defined and re-defined by scholars. According to Cuming (1968), “human

resource management is concerned with obtaining the best possible staff for an organization and having got them, looking after them so that they would want to stay and give the best to their jobs”. In other words, getting the right caliber of people by the process of recruitment to meet the organization’s need is not just enough. Conditions have to be created which would make them stay on the job, be happy with the job, and cope with the demands of the job. Storey (1995), defines human resource management as a distinctive approach to employment management which seeks to achieve competitive advantage through the strategic deployment of highly committed and capable workforce, using an integrated array of cultural, structural and personnel techniques. Mathis and Jackson (1997), see human resource management as the design of formal systems in an organization to ensure the effective and efficient use of human talent to accomplish organizational goals. Similarly, Griffin (1997), sees human resource management as the set of organizational activities directed at attracting, developing and maintaining an effective workforce. For Nickels, McHugh and McHugh (2002), human resource management is the process of evaluating human resource needs, finding people to fill those needs, and getting the best work from each employee by proving the right incentives and job environment, all with the goal of meeting the objectives of the organization. Armstrong (2009), defines it as “a strategic, integrated and coherent approach to the employment, development and well-being of the people working in organizations”. One can see from the foregoing definitions that human resource management is basically concerned with all aspects of the employment and management of people towards desired goals in the organization.

Human resources are the ultimate and most important of all the resources required for the production of goods and services. They are also key to rapid socio-economic development and efficient service delivery (Onah, 2015; Armstrong, 2009; Nmadu, 2012). The overall purpose of human resource management is to ensure that the organization is able to achieve success through people. The efficiency and effectiveness with which an organization can perform will depend to a large extent, on how its human resources are managed and utilized. Human resource management according to Olowu and Adamolekun (2002), focuses on six major interrelated policy areas namely: (1) management of change; (2) organization/job design; (3) recruitment, selection, and socialization; (4) appraisal, training, and development; (5) reward system; and (6) communication. Similarly, Yoder (cited in Onah, 2015), avers that human resource management functions include the following:

- i. Setting general and specific management policy and employment relationships and establishing and maintaining a suitable organization for collective bargaining.
- ii. Staffing and organization: funding, getting and holding prescribed types and number of workers.
- iii. Aiding the self-development of employees at all levels; providing opportunities for personal development and growth as well as requisite skills and experience.
- iv. Incentivizing: development and maintaining motivation in work.
- v. Reviewing and auditing the workforce and management in the organization.
- vi. Industrial relations research, carrying out studies designed to explain employees’ behaviour and thereby improve staff management.

Human Resource Management is similar to the more conventional concept of personnel management, but it differs in three important ways. First, human resource management emphasizes the strategic role of personnel in managing organizational change. Organizational development is no longer a discrete activity, separate from personnel management but is now a component of

human resource management. The second difference is that human resource management integrates human resource considerations to overall organizational strategy. Human resource management involves line managers and is no longer an exclusive responsibility of the personnel management department. This is because human resource management makes the important assumption that it is the quality and development of human resources that gives any organization its competitive edge, whether in the public or private sector. Finally, instead of the preoccupation of personnel rules for performing the threefold functions of personnel utilization, motivation, and protection, human resource management focuses on securing employee commitment to organizational goals through a consensual development of an organizational culture, devolved responsibility, and empowerment. This commitment to the individual employee permeates the whole organization's style and, in some countries, has led to a sharp de-emphasis of collective bargaining activities, which are central to the field of personnel management (Olowu & Adamolekun, 2002).

Human resource management has today become an important consideration and factor in an age of globalization in which large scale organizations like the Nigerian public service must compete for resources. The increasing assertiveness and visibility of customers in the delivery of services by public sector organizations has also made it even more essential to secure and manage human resources as the most critical resources of the public service. According to Olowu and Adamolekun (2002), the practical significance of the new human resource management orientation for the Nigerian public service is that it underscores the need for the transformation of personnel departments in public sector organizations from a preoccupation with passive or even negative roles of administering (largely on the basis of outdated rules) to actively developing and pursuing policies (like the adoption of e-government) for synergizing the human resource functions with overall proactive strategic management within the public service. It also calls attention to the need to develop professional skills for managing the most critical of all organization resources - its human resources - rather than treat it as a residual responsibility that can be handled by anyone who cannot be otherwise productively engaged in the organization.

Nigerian Public Service

Obikeze and Obi (2004), conceptualize Nigerian public service as “the totality of service that is organized under public or government authority. It fundamentally refers to the idea or ideal of rendering service to the public”. Obikezie and Obi write further that all those who work for the government are members of the public service hence the public service encompasses those in the police force, armed forces, civil service, local government, judiciary, executive, legislature, parastatals, boards, commissions, academic and research institutions owned by the government, and commercial enterprises owned by the government. For Nwachukwu (2018), “the Nigerian public service refers to the entire system of public management that determines and executes public policies. The public service covers the services of the government in its broadest sense like public utilities, financial institutions, medical, teaching, local government, legislature, judiciary, executive, military and the security forces, etc”. The 1999 Constitution of the Federal Republic of Nigeria (Part IV, Section 318) has made a detailed description of the Nigerian public service. It states that the public service of the Federation implies the:

Service of the Federation in any capacity in respect of the Government of the Federation, and includes service as: (a) clerk or other staff of the National Assembly or of each House of the National Assembly; (b) member of staff of the supreme court, the court of Appeal, the Federal High Court,

the High Court of the Federal Capital Territory, Abuja, the Sharia Court of Appeal of the Federal Capital Territory, Abuja, the Customary Court of Appeal of Federal Capital Territory, Abuja or other courts established for the Federation by this constitution and by an act of the National Assembly; (c) member or staff of any commission or authority established for the Federation by this constitution or by an Act of the National Assembly; (d) Staff of any area council; (e) staff of any statutory corporation established by an Act of the National Assembly; (f) staff of any educational institution established or financed principally by the Government of the Federation; (g) staff of any company or enterprise in which the Government of the Federation or its agency owns controlling shares or interest; and (h) members of officers of the armed forces of the Federation or the Nigeria Policy Force or other government security agencies established by law.

One can see from the foregoing definitions and descriptions that the Nigerian public service refers to the entire activities of all public offices and institutions that determine or executive public policies in the country.

Successive Nigerian governments have continued to accord immense pre-eminence to the public service as the engine room or live-wire of the state. This is why Ibiamu (2011), avers that the Nigerian public service provides a steady structural framework around which the regular mobilization and utilization of material and human resources of the society, for the general good, is organized. Asiodu (1993), had also underlined the relevance of the Nigerian public service to the state, when he argues that since government is the largest employer and dispenser of a huge chunk of national products, whose decisions affect the national economy, it is only natural that its machinery should function effectively; a requirement which the Nigerian public service fulfills. Hence, he concludes that it is the clearest manifestation of government to the ordinary citizens, both in the urban and in the remote localities of the state. The Nigerian public service therefore performs certain distinct and crucial functions. It provides a number of social services to the people. Such services include transportation, communications, supply of water, roads, education, health, housing, power, public enterprises and other utilities in the interests of socio-economic justice. It also formulates and implements laws and policies of government. By so doing, it remains the essential instrument for translating policies and laws into reality. The Nigerian public service also provides continuity when governments change in the country (Oyedele, 2015; Naidu, 2005).

Theoretical Framework

This study adopted structural-functional theory to explain the opportunities and challenges of the adoption and utilization of e-government in human resource management in Nigerian public service. Structural-functional theory is also known as structural-functionalism and it originated in the sphere of social anthropology in the writings of Radcliffe-Brown and Bronislaw Malinowski. Other scholars that have extended the frontiers of the theory are Talcott Parsons, Robert Merton, Marion Levy, Gabriel Almond, David Apter, Fred Riggs, among others (Gaub, 2005). Structural-functionalism is a derivative of the systems theory, just like the systems theory, structural-functional theory is also basically concerned with phenomenon of system maintenance and regulation. The theory considers the existence of societal structures and expected roles that will make a system operationally effective and efficient. It is the observable activities which make up a system (Almond & Powell, 1966).

The structural-functional theory emphasizes the role of structures and functions in understanding the political and administrative processes and the conditions under which structures can perform and the functions could be fulfilled. The basic theoretical proposition of structural-functional theory therefore is that all systems exist to perform functions through their structures. A structure is a pattern of behaviour that has become a standard feature of a social system. Structures are arrangement within the system that carry out the functions which could be from the system. A function on the other hand denotes the impact of a structure and the interrelationships among various structures. Function basically relates to the activity of a structure and its external effects. One can see from the foregoing that structural-functionalism revolves around two main concepts namely, structures and functions.

According to Almond and Powell (1966), the basic assumptions of structural functionalism are as follows:

- i. That the society is a single inter-connected system in which each of its elements performs a specific function and whose basic goal is the maintenance of the systematic equilibrium.
- ii. That the society, being a system as a whole, consists of its numerous parts which are interrelated.
- iii. That the dominant tendency of the social system is towards stability which is maintained by its own in-built mechanism.
- iv. That the system's ability to resolve internal conflicts is usually an admitted fact.
- v. That changes in the system are natural, but they are neither sudden nor revolutionary, but are always gradual and adaptive as well as adjustive.
- vi. That the system has its own structure, with its own aims, principles and functions.

Structural-functional theory is considered more apt and appropriate in this paper because of its utility and analytical strength in providing explanations for the interaction effects of certain elements and their consequences on other elements within the same administrative system. In other words, the opportunities and challenges of the adoption and utilization of e-government in human resource management in Nigeria public service can rightly be analyzed and explained in the light of the structural-functional theory. The major proposition of the structural functional theory is that all systems have parts (structures) that can be identified and which behave (function) in a coordinated and inter-dependent manner to achieve the objectives intended for them by the society in order to maintain systemic equilibrium, stability and development. As such, e-government implementation is initiated to perform certain functions arising from societal demands so as to ensure functional and operational stability, progress and development of the system.

Methodology

This study relied on documentary evidence (secondary data). These data were sourced by extracting relevant information from other sources and previous studies. These documents were mainly publications on e-government, ICTs, human resource management and the Nigerian public service. Thus, secondary sources such as textbooks, journal articles, periodicals and other written works sourced from libraries were utilized. The study also made use of internet materials that contained information on issues under study. These documents are already in the public domain. The study therefore refines, interpret, evaluate and analyze them.

The secondary data that were generated in the course of this study were analyzed using content analysis, rooted in systematic logical deductions. According to Kerlinger (1977), content analysis is a research technique for the objective, systematic, quantitative and qualitative description of the

manifest content of communication. The foregoing means that the study organized and synthesized the large volumes of textual data they were generated from all the documents mentioned above, with a view to searching for patterns and discerning what was relevant from the documents. In other words, the study systematically reduced the documents to logical, meaningful and coherent interpretation, and on the basis of that drew its inferences and conclusions.

Result of the Findings

Adoption and Utilization of E-Government in the Nigerian Public Service

The adoption of ICTs for public service delivery is as old as the Nigerian public service. ICTs such as telegraph and telecommunications have been applied over the years in the Nigerian public service as a means of public service delivery. The only difference now has to do with sophistication of ICTs in use vis-à-vis the ones that were used in the early days of the service. The Nigerian public service has enjoyed the benefits of telecommunications, the oldest form of ICT since the colonial era. This technology was brought to Nigeria by the British colonial administration to enhance administrative conveniences. According to Nigeria's National Policy on Telecommunications (2000), telecommunications facilities in Nigeria were first established in 1886 by the colonial administration. They were meant to discharge an administrative rather than socio-economic function in the development of the country.

However, concerted efforts at e-government adoption in Nigeria are traceable to the civilian government of Olusegun Obasanjo with the formulation of the Nigerian National Policy on Information Technology in March 2001, with the cardinal objectives among others to:

Improve the accessibility to public administration for all citizens, bringing transparency to government processes, bringing the government to the door-steps of people by creating virtual forum and facilities to strengthen accessibility to government information and facilitating interaction between the governed and government leading to transparency, accountability and the strengthening of democracy. And also by utilizing IT opportunities to restructure governments, citizens and business interfaces for better governance, improved trade and commerce and administrative effectiveness (Nigerian National Policy on Information Technology, 2001:iii-v).

In order to achieve the objectives of the Nigerian National Policy on Information Technology, the federal government established the National Information Technology Development Agency (NITDA), under the supervision and coordination of the Federal Ministry of Science and Technology in April 2001. The NITDA which is now under the Ministry of Communication and Digital Economy was mandated by the National Information Technology Development Act (2007), to "create a framework for the planning, research, development, standardization, application, coordination, monitoring, evaluation, and regulation of information technology practices, activities and systems in Nigeria". In other words, the NITDA was created to implement the country's information technology policy and accordingly help stimulate rapid development in all sectors of the economy. The implication of the foregoing is that NITDA is responsible for the implementation of e-government initiatives in the Nigerian public service and it does this through the National e-government Strategy Limited (NeGSt) and public-private partnership (Nwachukwu, 2014). The launching of e-registration of teachers in Nigeria in May, 2006 was the first rollout or project of NeGSt.

Over the years, NITDA has committed a lot towards ensuring that the public service embrace e-government initiatives. Some of their efforts have been most encouraging and rewarding. For example, projects and initiatives like the Integrated Personnel and Payroll Information System (IPPIIS) positioned to address the malaise of ‘ghost workers’ syndrome; e-payment, meant to improve transparency and financial accountability; e-tax collection, meant to enhance accountability; e-procurement, meant to address procurement transparency; and e-passport of the Nigerian Immigration Commission, among others, are some of the e-government initiatives championed by Government Ministries, Departments and Agencies in conjunction with NITDA (Afolabi, 2010).

The federal government has also continued to improve upon the existing ICTs infrastructure in the country through the activities of NITDA, the Nigerian Communication Commission (NCC) and other state owned and private organizations. It is in line with the above that the government established Galaxy Backbone in 2006 as a government owned company and charged it to deliver connectivity and other ICTs infrastructure to MDAs of government. Galaxy Backbone has currently connected more than 300 MDAs to its ONE.net network in over 3000 office locations nationwide making it the largest single network ever developed in the public sector. Similarly, Main One Cable, which was also established as a government company has the main one optic fiber capable system which is capable of transmitting and enabling access to broadband internet at a speed of almost five Terabytes per second and has delivered up to ten times more capacity than what was available in the public service. In addition, many MDAs have embarked on a massive workforce development programme through the use of e-learning and other ICT driven models to drive e-government reforms and entrench better human capacity and performance-based management. It is in line with the above that many MDAs have intervened in ownership of personal computers - laptops and Personal Digital Assistance (Tablets) to workers and subsidize access to broadband internet (Nwachukwu, 2014; Afolabi, 2010).

Despite all the foregoing and many other e-government initiatives, e-government utilization is still clearly on the low side in the Nigerian public service due to many challenges and problems confronting its implementation. This is also the reasons why e-government utilization in the Nigerian public service is still at the stage of web presence (Nwachukwu, 2014; Abasilim *et al*, 2017; Nwachukwu, 2018). It is pertinent at this juncture to discuss the e-government evolutionary stages. This will help to explain why e-government utilization is still on the low side in the Nigerian public service. The proposed stages of e-government utilization vary from scholar to scholar. However, the stages revolve around four phases namely: web presence, interaction, transaction and transformation (Baum & DiMaio, 2001; Layne & Lee, 2001; Bhatnagar, 2004; Macueve, 2011; Wadekar, 2019). The first stage is the ‘web presence’ stage and it represents the simplest and least expensive entrance into e-government, but it also offers the fewest options for citizens. At this stage, an agency can provide a website for posting agency-specific basic information to the public. In such contexts, the website has no interactive capabilities. The second state is that of ‘interaction’. This stage allows online interactivity and clients can download applications for receiving services. Although interactive web-based initiatives offer enhanced capabilities, efforts in this group are still limited in their ability to streamline and automate government functions. Interactions tend to be relatively simple and generally revolve around information provision.

These types of initiatives are designed to help the customer to avoid a trip to an office or to make a phone call by providing commonly requested information and forms throughout the day. These resources may include instructions for obtaining services, downloadable forms to be printed and

mailed back to an agency, or perhaps email contacts to respond to simple questions. The third stage is that of ‘transaction’. This stage handles the electronic delivery of services with some or all the stages automated. Its applications include the issuance of certificates and the renewal of licenses. The last stage is ‘transformation’ and it represents the image of a ‘joined up’ or ‘connected’ government in which all stages of transactions, including payments are done electronically. The relevant applications for this stage include government portals. It is also the stage for the electronic delivery of services and the stage where more than one department may be involved in processing a request or services. In general, the higher a stage is in ranking, the greater is its ability to offer more value to citizens. Given this factor, the transformation stage offers the greatest challenges at the level of implementation and technology requirements (Macueve, 2011). Abasilim *et al* (2017), obviously had the e-government evolutionary stages in mind when they argued that despite the possible benefits derivable from e-government adoption for enhanced service delivery; public service organizations in Nigeria are slow in adopting it. Instead, computerization of operations and internet services, which most often are not adequate, the over concentration of website creations, which are subset of what e-government adoption entails are the norms in the public sector. The table below summarizes the four-stage model of e-government maturity.

Table 1: Four Stage Evolutionary Model of E-Government

S/N	Stage	Capabilities
1.	Web presence	Agencies provide a website to post information to the public
2.	Interaction	Users are able to contact agencies through websites (e.g. email) or perform self-service (e.g. download document).
3.	Transaction	Users (including customers and businesses) can complete entire transactions (e.g. license application and procurement) online.
4.	Transformation	Governments transform the current operational processes to provide more efficient, coherent, integrated, unified and personalized service.

Source: Macueve, G. A. (2011:199)

Opportunities of adopting and Utilizing E-Government in Human Resource Management in Nigerian Public Service

E-Government no doubt offers Nigeria and indeed all developing countries great opportunities in human resource management in their public administrative systems. This is why Gupta and Jana (2003), argue that the application of e-government in the public sector is no longer seen as an option but as a necessity for all countries aiming at having better and efficient governance. This shows that there is a strong linkage between e-government application and efficient human resource management. In a study carried out in 2003, the European Commission observed that e-government utilization enables the public sector to maintain and strength good governance in the knowledge society, create a public sector that is open and transparent, governments that are understandable and accountable to the citizens and open to democratic involvement and scrutiny. It also ensures that the public sector is at the service of all, promotes a productive public sector that delivers maximum value for tax payer’s money, less time is wasted standing in queues, errors are drastically reduced, more ties are available for professional face-to-face service and the jobs of the public servants becomes rewarding in the process (Nweke, 2007a; Nweke, 2007b).

Indeed, extant literature is replete with the many opportunities of e-government as an efficient and effective means of human resource management. E-Government innovation and revolution has no doubt brought considerable potential to initiatives aimed at fighting corruption and increasing the participation of citizens in the institutions of government. To be specific, e-government has opened a new space or route that has huge potential for improving opportunities for the participation of

citizens in governmental affairs. This type of setting enhances equity, transparency, accountability, responsiveness, responsibility, effectiveness and efficiency in the manifold transactions that link service suppliers and service recipients (Muchie, 2011). It has also been argued that the utilization of e-government in the public service can lead to the following outcomes: saving costs while improving quality, response times and access to services (ADB, 2003); improving the efficiency and effectiveness of public administrative personnel (Pacific Council, 2002); increasing transparency in administration, reducing corruption and increasing participation (Seifert and Bonham, 2003), and; making governments more competitive (OECD, 2003).

Below, the opportunities of e-government adoption and utilization in Nigerian public service are summarized under five headings.

i. Reduced Cost of Administration

The application of e-government in the Nigerian public service allows for a significant reduction in information handling cost. This process enables faster sharing of information thereby reducing the frequency with which data is collected when it is handled manually. Obviously, data collected manually costs more due to travel costs and other allowances and expenses. According to Ndou (2004), if developing countries appropriately apply e-government initiatives, it will reduce the number of inefficiencies in processes by allowing file and data sharing across government departments, thereby contributing to the elimination of mistakes from manual procedures and reducing the required time for transactions. It is painful to observe that the cost of running government in Nigeria has been on the rise hence the application of e-government in the public service has the capacity of providing cheaper administrative cost due to the digitalization of public service delivery. It also helps to reform public administrative process by streamlining internal processes which enable faster, speedy and more informed decision making and transaction process. Nigeria is a country of about 150 million people distributed over a territory of 923,768 square kilometers (Akunyili, 2010). It is therefore easy to imagine the logistic challenge and cost that goes with service provisioning by the public service in the country. E-government initiatives by the service have enabled and will continue to enable it to render public services with greater efficiency and less cost to the public service and the recipients.

ii. Improved, Fast and Accurate Service Delivery

The traditional style of service delivery in the public service is time consuming because of the bureaucratic nature of the Nigerian public service. E-government therefore, helps to reduce waiting time and red-tapism, thereby bringing about fast and accurate service delivery. Public sector organizations in Nigeria like the National Youth Service Corps (NYSC), Joint Admissions and Matriculation Board (JAMB), Abuja Geographical Information System (AGIS) and a host of others have made service delivery to the citizens more convenient, faster and accurate through the digitalization of their operations and services. For example, JAMB utilizes e-initiatives now to conduct national matriculation examination for admission into Nigerian higher institutions of learning. These yearly examinations that usually involve over one million candidates see scripts computer-marked, and the results released and uploaded to the website within seven working days. All over the country, what it now takes for candidates to know their results is to visit the internet site of the examination body. The revolutionary dimensions of this e-government enhanced service can only be appreciated when compared with the former system where the examination results were anxiously awaited by the candidates for close to eight weeks. When eventually released, the notifications were sent by surface mail service through the post office. This created all sorts of

mix-ups as some notifications got lost in transit partly because some candidates' addresses would have changed in the interval.

One can see from the JAMB example that e-government enhances improved, fast and accurate public service delivery. E-government eliminates time-wasting, loss of documents, delay in responding to requests, and kickbacks normally associated with traditional style of service delivery. Even the idea of repeated visits to offices from a far distance, which normally takes a toll on resources, is usually reduced through e-government. E-government also allows public servants to deliver service outside normal office hours. Arguing in this direction, Ndou (2004), avers that e-government initiatives put government services online thereby reducing bureaucratic bottlenecks, offers round the clock accessibility, fast and convenient transactions and obviously enhances the quality of services. Similarly, intergovernmental and international communication relations with other public and private organizations are made faster and convenient. This can be seen on the dominance of e-mails, which have taken over surface mails. In addition, e-government initiatives such as electronic chatting, e-conferencing/video conferencing, etc, are making the public service smarter with reduced risks of travel. These initiatives also enable both the government and the private agencies to have discussions at a distance and at the same time run their respective offices.

iii. **Creates Access to Transparent, Accountable and Participatory Governance**

E-government initiatives have already demonstrated significant capacity for citizens to have greater access to information from public servants in Nigeria. Public service delivery improves citizens' participation in public sector management, which is enhanced through e-government. The opportunity generated in this perspective helps increase the transparency of decisions as citizens and the public servants interact through electronic processes. The citizens and other service recipients are allowed to contribute and exchange ideas and suggestion through electronic forum and websites. E-government reforms which is presently been experienced in Nigeria's public administration has created opportunity for public servants and citizens to have access to official information and transaction which were previously classified. This invariably enables the public service to harvest more data from operational systems through increment in the quality of feedback. It is therefore, obvious that government to citizen type of relationships enabled by e-government, which before now created suspicion are now reduced as more information are made available through different kinds of on-line communication between the public service and her service recipients. E-government usage in the public service therefore, enhances transparency, accountability and participatory governance. It also reduces corrupt practices by the personnel of the service.

iv. **Enhances Networking and Inter Governmental Relations**

E-government provides and enhances networking of relationships among governments, customers, businesses, employees and other organizations. The successful use and diffusion of e-government in the public service involves a collective, multi-disciplinary and dynamic learning process (Mansell & Wehn, 1998). This is the case of such Nigerian public agencies like NYSC, JAMB, AGIS, NOUN, WAEC, NECO, etc, that have fully embraced e-initiatives in the delivery of public services. According to Ndou (2004), the very nature and function of e-government require network approach to put together skills, technologies, information and knowledge that span the boundaries of different governmental agencies. The application of e-government therefore, enhances the practice of Enterprise Resource Planning (ERP), which is an integrated business that ties all the various functions of an enterprise like finance, human resource management, etc, into a cohesive

system on a common database. In the views of Wescot et al (cited in Nweke, 2007b), ERP system may be integrated with the internet and workflow. ERP presents opportunities to the public servants in the areas of financial management, human resource management, records management, material management, etc. The establishment of integrated online network in the public service therefore, enhances data sharing that facilities feedback. The Organization for Economic Cooperation and Development (OECD) argues along this line when it notes that strengthening relationship between the government and the citizens could improve the quality of services by allowing government tap wider sources of information, perspectives and solution to meet the challenges of policy making under conditions of increased complexity (OECD, 2001).

In addition to the foregoing, services like attachment mails, online delivery of scanned files, etc, speed up bureaucratic transactions in the public service. The innovations that come with e-government is reducing red-tape and similar lapses that come with traditional means of service delivery. Above all, e-government initiatives in the public service enable public servants to interact, transact and communicate electronically with businesses, citizens and other stakeholders. It is therefore necessary to mandate the use of e-government tools and applications for the development of new forms of citizens' participation in the public service.

v. Boosts Competitive and Responsive Service Delivery

The digitalization of operations and services in the public service in Nigeria means that the public sector is in a healthy competition with the private sector in delivering qualitative and productive services to the citizens. E-government application in the public service therefore, boosts competitive and responsive service delivery in the country. This development is heart-warming and commendable especially when one recalls that the private sector was on top in the use of ICTs in the country prior to the digitalization of operations and services in the public sector. According to Nweke (2007b), the Automated Custom Data, Electronic Immigration Passport/Visa Application, NIPOST Post Cash, and other similar initiatives are examples of e-government potentials in reforming the public service for increased productivity and competitiveness. In the views of Mansell and Wehn (1998), e-government plays a vital role, not only in facilitating market let initiatives but also in initiating the process of capacity building and in coordinating the actions of a large number of interested stakeholders.

In addition, e-government usage in the public service provides structure of opportunities mediating between the citizens and the public service using digital ICTs by the government and the citizens. It therefore, implies that e-government application in the public service brings about citizens that are active, connected and informed. E-government also helps to stimulate exchange of information in which citizens and government relate interactively thereby enhancing productive and responsive service delivery. This also helps to bridge the gap between the citizens and the government.

Challenges of adopting and Utilizing E-Government in Human Resource Management in Nigerian Public Service

Despite the enormous opportunities of adopting and utilizing e-government in human resource management in the Nigerian public service, the situation on the ground in the public service is not quite rosy (Nwachukwu, 2014). Sadly, this is the situation in many developing countries. This is why Waema (2011, p.25), observes painfully that most e-government projects or initiatives in Africa have not achieved the often-quoted outcomes. According to him, the Gartner Group in 2002 reported that "more than 60 percent of all e-government initiatives (in Africa) either fail or fall short of expected outcomes". Saxena (2005), argues similarly that in spite of the worldwide

diffusion of e-government initiatives, achieving its claimed benefits in Africa has not been easy due to various technological and organizational reasons. Heeks (2003), notes also that e-government projects often fail either totally or partially to achieve their objectives, despite their initial successes. He observes that in developing countries, the implementation of e-government fails, with 35 percent being classified as total failures and 50 percent as partial failures.

The foregoing is a challenge and a disturbing fact for a developing country like Nigeria that has many limitations. As such, critical issues have to be addressed in order to scale up and enhance e-government utilization in human resource management in the public service. Available literature is indeed replete with many challenges that developing countries like Nigeria face vis-à-vis the utilization of e-government as a reform model for human resource management. The following are some of the challenges confronting the Nigerian public service and indeed many developing countries in their efforts to utilize e-government to enhance human resource management. They are challenges of leadership and lack of political will; lack of infrastructure; lack of e-government skills; attitudinal change for adoption; lack of public confidence in e-government; safeguarding of public document/secret; lack of confidence in online interaction with government; epileptic power supply; problem of digital divide; high cost of ICTs and affordability; resistance of mind set of people; lack of comprehensive national policy on e-government; Nigeria's low e-readiness; low e-government literacy and usage; lack of e-government units and functions; limited, slow or non-existent internet connectivity; inadequate e-government funding; and, poor institutional governance structure to drive e-government (Bhatnager, 2004; Ndou, 2004; Misuraca, 2006; Komba & Ngulube, 2012; Nzimakwe, 2012; Mpinganjira, 2013; Nwachukwu, 2014; Nwachukwu & Pepple, 2015a; Nwachukwu & Pepple, 2015b; Nwachukwu, 2018; Wadekar, 2019). We will now examine in details the foregoing challenges of e-government utilization in the Nigerian public service. Again, the study decided to summarize the challenges under five headings;

i. Challenges of Leadership and Political Will

Problems of leadership and political will are indeed great variable constraining e-government adoption and utilization in the Nigerian public service vis-à-vis human resource management. Like other developing nations, political influence, lack of accountability and transparency, problem of corruption, etc, are threats facing the adoption and utilization of e-government in the public sector of Nigeria. This condition of affairs is supported by Chiborra (2005), who argues that the notion of e-government on its own is not suited for developing countries who want to obtain the associated benefits. According to him, political and social changes are required alongside the implementation of e-government in the developing countries. He adds that failures due to governance breakdown, corruption, rent seeking, distortions in markets and the absence of democracy should be addressed before e-government can be implemented in developing countries. The willingness of public officials and leaders is therefore, a key factor in every new initiative such as e-government.

According to Nweke (2007b), due to its complex process, risks and challenges, many public organizations as well as their leaders in many developing countries have resisted e-government initiatives due to ignorance, policy issues and obsolete rules and regulations. This is why Ndou (2004), maintains that leadership is necessary before, during and after e-government implementation. Besides, the leader is required during the implementation of e-government initiatives to manage change and provide for feasibility and adaptability of the project. This is why McClure (2001), argues that top leadership involvement and clear lines of accountability for making human resource improvements are critical to overcoming organizations natural resistance to change, marshalling the resources needed to improve human resource and building and

maintaining the organization wide commitment to new ways of doing things. In Nigeria unfortunately, the leaders have not demonstrated enough commitment towards the utilization of e-government to manage human resources in the country's public service. The Nigeria public service is still at the stage of web presence. Even then, most of the websites of government ministries and departments are characterized by static and insufficient information that are rarely updated, few interactive features and non-existent online services (Nwachukwu, 2014). The insignificant interest of the political leaders has therefore greatly reduced the potentials of e-government vis-à-vis human resources management.

ii. **Problem of Digital Divide**

Digital divide refers to the gap or inequalities between people who have the resources and access to ICTs and people who do not have the resources and access to the technology. The term also describes the discrepancy or gap between those who have the skills, knowledge and abilities to use ICTs and those who do not. In Nigeria today, digital divide is experienced between the urban rich and poor; between the rural and urban citizens; and between the ICT literate and the ICT illiterate. This manifests also in the language in which ICT content is delivered which can only be understood by a minority few. Many Nigerians are poor and live in rural areas and as such lack access to ICTs. This means that these categories of Nigerians might not obtain important government (human resources) information and services, or even consider participating in online interactions with the government. Poor and disadvantaged groups, particularly women often face special constraints in accessing ICTs and using them for their specific needs. Unequal access can therefore, worsen existing inequalities. The risks of exclusion suggest that the Nigerian government should be concerned with the level of connectivity and ICTs provision and with how to enable access and deploy ICTs and its content in ways that expand relevant information for the poor, increase their voice in decision-making and address bottlenecks to their lives.

The high cost of e-government equipment and services also constitute key constraining factor to human resources management in the country. There is also the problem of digital divide between Nigeria and the developed countries who are of course the manufacturers of these technologies. Nigeria presently does not manufacture most of the ICTs infrastructure needed for e-government hence she has to rely on the developed countries. And as Tapscott (1996), observes, infrastructure is required to enable ICTs provide appropriate sharing of information and open up new services. Indeed, the challenge posed by digital divide must be taken seriously by the government if public servants and indeed Nigerians must benefit from e-government utilization in the service. An e-government site in the public service that provides web access and support often does not offer the potential to reach many users including those who live in remote areas, have low literacy levels and those who exist below poverty line incomes. A World Bank Report (2003), observes that the gap between developed countries and the developing ones is large with high income economies having 416 personal computers per 1,000 people and low-income economies having only 6 personal computers per 1,000 people. This is indeed disturbing. Is it not possible that the utilization of e-government in the public service will benefit the rich and those who are connected against the poor in the country? What this simply means is that the government must put measures in place to ensure that all citizens have equal access to e-government usage in the public service. This is important because countries of the world today have recognized that e-government is a critical or strategic resource in human resources management and by extension national development.

iii. **Low E-Government Skills, Literacy and Usage**

Besides the problems of leadership, digital divide, and the dearth of ICTs infrastructure in the country, e-government utilization in the public service lacks personnel with the requisite e-government skills needed for public service delivery. Regardless of the existence of sophistication of ICTs, human beings remain the most critical success factor. They are the users and creators of data. They are the managers of the technology. The UN and ASPA (2002), see this particular problem of lack of qualified staff and inadequate human resources training as pervasive and chronic in many developing countries for many years now. The problem hinges on the unavailability of human capacities that have the technical skills for installation, maintenance, design and implementation of e-government infrastructure.

Indeed, the problem of low e-government skills, literacy and usage impacts negatively on Nigeria's e-government readiness index. E-Government readiness is a comparative ranking of the countries of the world by the United Nations Public Administration (UNPA) Network according to two primary indicators: (i) The state of e-government readiness; and (ii) the extent of e-participation. Constructing a model for the measure of digitized services, the UNPA survey assesses the 191 member countries of the UN according to a quantitative composition index of e-government readiness based on website assessment; telecommunication infrastructure and human resource endowment. It is sad to note however that Nigeria just like many developing countries has persistently ranked low in the UN e-government readiness index (Adeyemo, 2011). The key issues leading to the low e-government readiness in Nigeria are lack of technical e-government human capacity; low e-government literacy and usage; lack of e-government units and functions; little or no assess to ICTs infrastructure; and limited, slow and non-existent internet connectivity.

One can see from the foregoing that human capital development is a vital prerequisite for e-government utilization in the public service. This has become even more necessary considering the tendency of government to use external consultants and contractors which makes e-government utilization very expensive in the public service. The problem of low and inadequate e-government skills or personnel in the public service also goes a long way in explaining why most e-government initiatives and facilities in the public service such as computers and telecommunication equipment are fast becoming decorative ornaments in offices as the human capital required to use them are lacking. To get out of these problems, Ndou (2004), suggests addressing human capital development issues. Those saddled with the responsibilities of managing the affairs of the public service should therefore, focus attention on staff training and development in order to help public servants acquire the required skills and knowledge needed for e-government utilization in the service.

iv. **Problem of Adapting to Change**

Problem of adapting to change is another key challenge to e-government utilization in the public service. Change is one phenomenon that is permanent or constant in nature but always difficult to be followed due to resistance. Resistance to change associated with e-government utilization in the public service comes about due to factors such as culture, labour, ideological issues and inertia of the options and habits (Nweke, 2007a; Nweke, 2007b). Among the foregoing factors, culture is the most challenging. The most evident cause of resistance to e-government utilization in the service is obtainable among public servants who do everything possible to oppose the change of processes or practices that have existed for years. It is this resistance to change that makes public servants in Nigeria to be reluctant to share information thereby resulting in policies that deny

access to information and the creation of empty government websites with information of little value.

In a study carried out in India, Bhatnagar (2004), observes that resistance to change from public staff was one of the major problems encountered in e-government implementation in the Indian public service. According to him, the staff of the revenue department were the people who resisted change the most as they stood to lose the income received from bribes. Some staff feared job losses, while others were reluctant to learn and use the new technology and new work practices. Several meetings and performance reviews were therefore, organized to persuade staff to become accountable and to motivate them for better performance. To make e-government realize its potentials in Nigeria, Nweke (2007a; 2007b), advises that the prospective users of e-government infrastructure should be re-oriented in line with new technological development in the public service. Equally, due to the difficulty in turning off old traditions and ways of life, incentives and benefits are recommended for the transiting employees to learn and accordingly change to attributes that would enhance e-government ideals in the public sector. Akunyili (2010), writes that as a way of tackling the problem of resistance to change in the Nigerian public service, the government has continued to place emphasize on cultural change to ensure public servants buy into the new technology driven processes, rather than manual ones that have been in place for many years. There is also the need according to her for consolidation of information and cross-sectional collaboration in order to ensure that the entire public service and other agencies of government share information and resources to ensure that policy design and implementation are driven by holistic perspectives.

v. **Lack of Public Confidence and Trust in Online Interaction with Government**

The last challenge of e-government utilization in the public service that we will discuss here is the problem of lack of public confidence and trust in online interaction with the government. Many people in Nigeria do not have confidence and trust in e-government initiatives in the public service. This has to do mainly with questions of data protection, network and information security. Indeed, the rate with which people abuse online information and communication scares both individuals and public administrators alike from depending on e-government. The activities of cyber criminals and hackers have continued to be on the increase in Nigeria. The presence of JAMB, WAEC, NECO and similar organizations online in Nigeria has led to the forging of documents since users now take results and documents online. The foregoing scenario compromises personal data, authentication of data and identity management. The Green Paper on E-Commerce (2000), advocates that government regulation could play an important role through specific legislation with respect to enhancing users' sense of privacy protection in online interaction.

Indeed, the difficulty that comes with securing public confidence and trust in online interaction with the government remains a threat to e-government utilization in the public service. Some public servants in Nigeria even resist e-government initiatives in the service based on this factor. According to Nweke (2007a; 2007b), if e-government utilization in Nigeria must receive boost, citizens and government should always be able to control access to their data, and how these data are stored, used, accessed and protected. To this end, the use of privacy enhancing technologies should be favoured to avoid breaching the law. These considerations are necessary to raise confidence and trust among Nigerians in embracing e-government and accordingly reduce the resistance that comes with its utilization in the public service.

Conclusion

This study has examined the opportunities and challenges of the adoption and utilization of e-government in human resource management in the Nigerian public service. From data collected, it is obvious that the adoption and utilization of e-government in the Nigerian public service has opened up vast opportunities to meet the intractable challenges and difficulties that have confronted human resource management over the years in the country. Today, e-government implementation in the Nigerian public service has dramatically changed the way information is collected, stored, processed, disseminated and used, thus making it the most powerful tool for modernization, development and progress. Indeed, e-government adoption and utilization in the public sector is no longer seen as an option today but as a necessity for all countries aiming at improving human resource management. However, the main challenge of the adoption and utilization of e-government for human resource management in the Nigerian public service is the low nature of its usage which arises due to the many challenges which have been identified and discussed in this study. These challenges have combined to hamper the enormous potentials of e-government as a means of efficient, effective and responsive human resource management in the Nigerian public service. There is therefore, the urgent need for the government and those concerned to concisely tackle these challenges so as to enhance the potentials of e-government vis-à-vis human resource management in the Nigerian public service.

Recommendations

Based on the findings of the study, the following recommendations are made:

- i. Nigeria should develop an e-government strategic direction or master plan that will help to drive e-government utilization in the Nigerian public service.
- ii. Nigeria should create and train e-government leaders that will be responsible for implementing the national e-government master plan and ensuring that all the national government websites and e-government policies are integrated and coherent. They will also act as advocates for e-government in the country.
- iii. The government should increase budgetary allocation and funding to the ICTs sector. The government can also help to mobilize resources for developing and sustaining ICTs infrastructure.
- iv. More efforts should be devoted to improving the country's epileptic power supply as e-government for human resource management cannot work without a regular source of power supply.
- v. Lastly, the government should develop more partnerships with the private sector and civil society organizations vis-à-vis e-government utilization in the public service. This will help in the mobilization of capital, the promotion of management capabilities and the sharing of skills between sectors for managing e-government initiatives and projects in the public service.

References

- Abasilim, U.D., Gberevbie, D.E. & Ifaloye, O.R. (2017). Attaining a better public service delivery through E-Governance adoption in Nigeria. Paper presented at the 4th Covenant University Conference on E-Governance in Nigeria, June 7 – 9.
- Abramson, A.M. & Means, E.G. (2001). *E-Government, price water house coopers endowment for business of government*. Boulder: Rowman and Littlefield Publishers.

- Adeyemo, A.B. (2011). E-Government implementation in Nigeria: an assessment of Nigeria's global e-government ranking. *Journal of Internet and Information System*, 2(1), 11-19.
- Afolabi, O. (2010). Keynote address by the head of the civil service of the federation, Prof. Oladapo Afolabi, at the launch of the broadband access partnership between galaxy backbone plc and main one cable company, Abuja, Thursday 16.
- African Development Bank (2003). To serve and to preserve: improving public administration in a competitive world. Available online at: www.adb.org/documents/manuals/serve-and-preserve/chapter19.pdf.
- Akunyili, D. (2010). ICT and e-government in Nigeria: opportunities and challenges. An address by the minister of information and communications, Prof. Dora Akunyili, at the world congress on information technology, Amsterdam, The Netherlands, 25th – 27th May.
- Almond, G.A. & Powell, G.B. (1966). *Comparative politics: a developmental approach*. Boston: Little Brown Company.
- Armstrong, M. (2009). *A handbook of human resource management practice*. London: Kogan Page.
- Asiodu, P.C. (1993). The future of the federal and state civil service in the context of the twelve-state structure. In Asiodu, P.C. (ed.) *Essays on Nigerian political economy*. Lagos: Jankore Publishers Limited.
- Baum, C. & DiMaio, A. (2001). Gartner's four phases of e-government model. Available online at: <https://www.gartnerz.gartnerweb.com/public/static/hotc/00094235.html>.
- Bhatnagar, S.C. (2004). *E-Government: from vision to implementation*. New Delhi: Sage Publications.
- Cuming, M.W. (1968). *The theory and practice of personnel management*. New York: McGraw Hill Book Company.
- Federal Republic of Nigeria (1987). *Political bureau report*. Lagos: Federal Ministry of Information.
- Federal Republic of Nigeria (1999). *Constitution of the federal republic of Nigeria*. Lagos: Federal Government Press.
- Federal Republic of Nigeria (2000). *Nigeria national policy on telecommunications*. Abuja: Government Printer.
- Federal Republic of Nigeria (2001). *Nigeria's national policy on information technology*. Abuja: Government Printer.
- Federal Republic of Nigeria (2007). *National information technology development act*. Abuja: Government Printer.
- Gauba, O.P. (2005). *An introduction to political theory*. Delhi: Macmillan India Limited.
- Green Paper on E-Commerce (2002). Make it your business, November.
- Griffin, R.W. (1997). *Management*. Delhi: A. I. T. B. S. Publishers.
- Gupta, M.P. & Jana, D. (2003). E-Government evaluation: a framework and case study. *Government Information Quarterly*, 20(4), 365-387.
- Heeks, R. (2001). Understanding e-government for development. E-Government working papers. Available online at: <https://www.idpm.ac.uk/wp/igovwpll.htm>
- Heeks, R. (2003). Most e-government for development projects fail: how can risks be reduced? Available online at: <https://www.idpm.man.ac.uk/publications/wp/igov/index>.
- Hirst, P. & Norton, M. (1998). Electronic government, information technologies and the citizens. United Kingdom Parliament, Parliamentary Office of Service Technology. Available online at: <https://www.parliament.uk/post/egov.htm>.

- Ibiamu, G.P. (2011). Historical development of the public service in Nigeria. In Nwachukwu, L.C., Onwubiko, O. & Obi, E.A. (eds.) *Readings on the Nigerian public service*. Onitsha: Bookpoint Educational Limited.
- Karim, R.M. (2015). E-Government in service delivery and citizens' satisfaction: a case study on public sectors in Bangladesh. *International Journal of Managing Public Sector Information and Communication Technologies*, 6(2), 49 – 60.
- Kerlinger, F.N. (1977). *Foundations of behavioural research*. New York: Holt, Rinehart & Winston.
- Komba, M.M. & Ngulube, P. (2012). Factors for e-government adoption: lessons from selected African countries. *Mousaion Journal*, 30(2), 24 – 32.
- Layne, K. & Lee, J. (2001). Developing full functional e-government: a four stage model. *Government Information Quarterly*, 18(2), 122 – 136.
- Macueve, G.A. (2011). Influence of the e-government implementation process on outcomes: case study of the land management information system in Mozambique. In Waema, T. M. & Adera, E.O. (eds.) *Local government and ICTs in Africa: case studies and guidelines for implementation and evaluation*. Ottawa: Pambazuka Press.
- Mansell, R. & Wehn, U. (1998). *Knowledge societies: information technology for sustainable development*. Oxford: Oxford University Press.
- Mathis, R.L. & Jackson, J.H. (1997). *Human resource management*. Minneapolis: West Publishing Company.
- McClure, D.L. (2001). Electronic government: challenges must be addressed with committee on governmental affairs, on behalf of the US general accounting office. Available online at: <http://www.gao.gov.tems/dol959=pdf>.
- Misuraca, G.C. (2006). E-Government in Africa, from theory to action: a practical-oriented research and case studies on ICTs for local government. ACM International Conference Proceedings Series, 151.
- Mpinganjira, M. (2013). An empirical investigation of factors affecting the adoption of e-government services. *Journal of Contemporary Management*, 10(1), 320-338.
- Muchie, M. (2011). Forward. In Waema, T.M. & Adera, E.O. (eds.) *Local government and ICTs in Africa: case studies and guidelines for implementation and evaluation*. Ottawa: Pambazuka Press.
- Naidu, S.P. (2005). *Public administration: concepts and theories*. New Delhi: New Age International.
- Ndou, D.V. (2004). E-Government for developing countries: opportunities and challenges. *The Electronic Journal on Information Systems in Developing Countries*, 18(1), 1 – 24.
- Ngulube, P. (2007). The nature and accessibility of e-government in sub-sahara Africa. *International Review of Information Ethics*, 7.
- Nickels, W.G., McHugh, J.M. & McHugh, S.M. (2002). *Understanding business*. Boston: McGraw Hill Irvin.
- Nmadu, T.M. (2012). *Managing human resources in the 21st century and beyond: context and concept*. Bukuru: Africa Christian Textbooks.
- Nwachukwu, L.C. (2011). The problem of the public service in Nigeria. In Nwachukwu, L.C., Onwubiko, O. & Obi, E.A. (eds.). *Readings on the Nigerian public service*. Onitsha: Bookpoint Educational Limited.

- Nwachukwu, L.C. (2014). Information and communication technologies and public service delivery in Nigeria: a study of the federal ministry of science and technology. A PhD thesis submitted to the Ebonyi state university, Abakaliki.
- Nwachukwu, L.C. (2018). The role of e-government in public service delivery in the Nigerian civil service. *Madonna Journal of Public Administration*, 1(1), 1 – 24.
- Nwachukwu, L.C. & Pepple, S.J. (2015a). The potentials of information and communication technologies as a means of public service delivery in the Nigerian federal civil service. *Nasarawa Journal of Political Science*, 3(3), 139 – 161.
- Nwachukwu, L.C. & Pepple, S.J. (2015b). Information and communication technologies and public service delivery in the Nigerian federal civil service: opportunities and challenges. *International Journal of Social Sciences and Humanities Review*, 5(2), 132 – 147.
- Nweke, E.N. (2007a). Re-inventing administrative governance in Nigeria: can information and communication technologies make a difference? *African Journal of Political and Administrative Studies*, 3(1), 171 – 194.
- Nweke, E.N. (2007b). Electronic service delivery as a model of public sector reform in Nigeria: a study of e-governance application in public service delivery. In Obi, E.A. & Dalhatu, M.Y. (eds.) *Current practices and problems of Nigerian public administration*. Onitsha: Bookpoint Educational Limited.
- Nzimakwe, T. (2012). Transforming the public service through e-government: challenges for the future. *Africanus Journal of Development Studies*, 42(1), 165-173.
- Obikeze, O.S. & Obi, E.A. (2004). *Public administration in Nigeria: a developmental approach*. Onitsha: Bookpoint Educational Limited.
- Organization for Economic Cooperation and Development (OECD)(2001). *OECD information technology outlook: ICTs, e-commerce and the Information Economy*. Paris: Organization for Economic Cooperation and Development.
- Organization for Economic Cooperation and Development (OECD)(2003). The e-government imperative: OECD e-government studies. Available online at: <http://www.oecd.org/publications/e-book/4203071E.PDF>
- Olaopa, T. (2008). *Theory and practice of public administration and civil service reform in Nigeria*: Ibadan: Spectrum Books Limited.
- Olowu, D. & Adamolekun, L. (2002). Human resources management. In Adamolekun, L. (ed.) *Public administration in Africa: main issues and selected countries studies*. Ibadan: Spectrum Books Limited.
- Onah, F.O. (2015). *Human resource management*. Nsukka: University of Nigeria Press Limited.
- Oyedele, S.O. (2015). The Nigerian public service and service delivery under civil rule. *Journal of Public Administration, Finance and Law*, 7, 33-43.
- Pacific Council on International Development (2002). *Roadmap for e-government in the developing world: 10 questions e-government leaders should ask themselves*. The working group on e-government in the developing world, Los Angeles: Pacific Council on International Policy.
- Riley, B.T. (2001). *Electronic governance and electronic democracy: living and working in the connected world*. Brisbane, Australia: Common Wealth Centre for Electronic Governance.
- Saxena, K.B.C. (2005). Towards excellence in e-governance. *International Journal of Public Sector Management*, 18(6), 498-513.
- Storey, J. (ed.) (1995). *Human resource management: a critical text*. London: Routledge.
- Tapscott, D. (1996). *The digital economy*. New York: McGraw Hill.

- United Nations & ASPA (2002). Benchmarking e-government: a global perspective. United Nations and American society for public administration. Available online at: [http://www.unpan.org/e-govenment/benchmarking%20E-gov%202001:pdf](http://www.unpan.org/e-govenment/benchmarking%20E-gov%202001.pdf).
- United Nations (2008). *United Nations global e-government survey 2008: from e-government to connected governance*. New York: United Nations Department of Economic and Social Affairs for Public Administration and Development Management.
- Wadekar, A.G. (2019). *Public administration and information technology*. New Delhi: Random Publications.
- Waema, T.M. (2011). E-Governance assessment framework. In Waema, T. M. & Adera, E. O. (eds.) *Local governance and ICTs in Africa: case Studies and guidelines for implementation and evaluation*. Ottawa: Pambazuka Press.
- WorldBank (2001). *Issue note: e-government and the World Bank*. Washington DC.: The WorldBank.
- WorldBank (2003). World Bank development indicators. Available online at: <http://www.worldbank.orgdata/wdi2003>.