ICT and Governance: Driving Public Service Productivity through E-Government in Nigeria

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Abstract

The business of governance has continued to be challenging in recent times owing to technological development. These challenges occasioned by the increasing demand for accountability, transparency and in recent times the COVID 19 pandemic are putting pressure on the public service to embrace digital innovation to enhance productivity. This paper therefore discusses ICT and e-governance: driving public service productivity through e-government. The paper's objectives: examined the role of e-government in enhancing productivity in public service, e-government as an effective driver for public service productivity and the implications for enhanced service delivery in the Nigerian public service. The paper adopted Technology Acceptance Model as its theoretical framework. The method adopted was library research and secondary sources. The paper argued that e-government was necessary in other to ensure efficient, effective and transparent service delivery in governance. The paper concludes that e-Government drives productivity in the public service by enhancing public service productivity. The paper recommends that the government must tackle the challenge of poor literature level of public servants in information and communication technology.

Keywords: ICT, E-government, driver, public service and productivity

Introduction

The pivotal role of the public service to Nigeria's development informs the various reforms aimed at reinvigorating it in order for it to be able to efficiently and effectively deliver its responsibility. Like most African governments, the country has attempted improving performance of its public service through various reforms, such as the Adebo Commission (1971), Udoji Public Service Review Commission of 1974, Dotun Philips Civil Service Reform of 1988, Allison Ayida Committee on Civil Service of 1995. The 1999 reforms by President Obasanjo's administration, through the establishment of the Bureau for Public Service Reform (BPSR), former president Goodluck Jonathan, public sector reforms' drive anchored on Vision 20:2020, ((Ake, 2015, Ukwandu, & Ijere, E.S, 2020).

The ultimate goal of these reforms were to raise the quality of public services delivered to the citizens and to enhance their capacity to carry out core government functions, which are critical to the promotion of sustained socioeconomic development of Nigeria (ECA, 2010). In spite of all these efforts aimed at improving the

administrative efficiency of the public service and repositioning it for effective service delivery, the Nigeria public Service remains inefficient and incapable of delivering its responsibility. The bid to attain higher productivity in the Nigeria's Public Service has remained a wishful thinking as bureaucratic inefficiency continues to constitute its serious concern. It has adversely affected the efficient delivery of public goods and services to the citizens (Darma and Ali, 2014).

Thus necessitating the need to embrace e-government through the use of information and communication technology (ICT) to enhance public service delivery. The situation is that "In an e-government system, individuals are able to initiate a request for a particular government service and then receive that government service through the Internet or some computerized mechanism. In some cases, the government service is delivered through one government office, instead of many. In other cases, a government transaction is completed without direct in-person contact with a government employee". (Solinthone, & Rumyantseva, 2016 p. 2)

This therefore brings to the fore the need to examine the use of e-Government in public service delivery. The literature on the effectiveness of e-government in developing countries towards improving public service delivery is awash with failure stories (Visser and Twinomurinz.2001) Notwithstanding, the failures have not stopped most governments in developing countries from increasingly turning to ICT, most notably internet-based models, as the preferred channel for citizen-centered service delivery (Visser, and Twinomurinz.2001)

In most African countries, including Nigeria, providing public services constitute a huge challenge, which is conventionally perceived as exclusively government responsibility to offer the needed services (Visser, and Twinomurinz.2001)

In reality, the challenges and difficulties of service delivery are widening, given scarce resources and management challenges; thus, government alone often cannot offer these services at levels that match speedy population growth, and urbanization in Nigeria. In Nigeria, citizen's perception of the government is that the institutionalized systems of service delivery of public services is poor, hence, its lacks required structures, and capability to deliver services that meets and exceed citizens expectations. In particular, running of governments in Nigeria costs too much to delivers what is far below citizens' expectation and increasingly perceived as unresponsive or accountable. More worrisome is the fact that many public bureaucracies were seen as bloated, incompetent and self-centered, motivated essentially by underlying rent seeking tendency which is promoted by traditional administration bureaucracy (Olivier, 2015).

This might have informed the decision by Obasanjo's government to embrace e-government. He stressed that his administration has been centred on reorientation and reorganization of the civil service and public officials by changing the business as usual (highly bureaucratic) default system to a transparent, efficient, productive, and participatory one. Moreover, he noted that his administration has taken a bold step to re-engineer the backroom engine to institutionalize an "effective system through

computer assisted modern processes known as e-government" (Obasanjo 2004 p2 cited in Abdulkareem, 2015)

A similar view was shared by the former Minister of Science and Technology who stressed the need for e-government as a change element in the Nigerian public service. Policy frameworks were drawn to actualize these plans. The 'mother' policy for ICT was drafted back in the year 2000 known as the National Information Technology Policy under the supervision of the National Information Technology Development Agency (NITDA). The policy drafted was to be implemented using a Public Private Partnership (PPP) model which comprises of three broad actors namely, government, consortium of banks and private investors. Nigeria has made some recognisable progress in e-government over the years despite kicking off late when compared to the likes of Malaysia, Iran and South Africa (Abdulkarim, 2015).

The combination of the use of advanced ICTs, especially the Internet, and the support of new ways of thinking and working in public administration, together with the enhanced provision of information and interactive services accessible over different channels, is the foundation of e-government. E-government has been seen as a global phenomenon and is being viewed as an institutional mechanism for driving efficiency in the public sector to achieve good governance and to improve the quality of public service delivery (Zouridis and Thaens, 2003).

It is therefore imperative that a new strategy that will enhance efficient productivity and service delivery in the Nigerian Public Service be adopted for the desired economic and political development of the country. In the global context of e-Government, many countries have made significant advancement in utilizing the potentials of ICT for administrative efficiency. However, its adoption and implementation in Nigeria seem to have been a contention among scholars and practitioners.

This therefore makes it imperative to examine e-Government as a driver for public service productivity in Nigeria. This is because the effectiveness and productivity of any government is principally determined by the efficiency of the public service (Kwaghga, 2010).

Objectives of the Paper

The objectives of the paper are to:

  i.   examine the use of e-Government in enhancing productivity in public service
  ii.   examine the challenges of e-Government as driver for public service productivity and
  iii. identify the implications for enhanced service delivery in Nigeria's public service

Conceptualization

ICT is a diverse set of technological tools and resources used to transmit, store, create, share or exchange information. These technological tools and resources include

computers, the Internet (websites, blogs and emails), live broadcasting technologies (radio, television and webcasting), recorded broadcasting technologies (podcasting, audio and video players and storage devices) and telephony (fixed or mobile, satellite, visio/video-conferencing, etc.(UNESCO, 2020).

E-government can thus be defined as the use of ICTs to more effectively and efficiently deliver government services to citizens and businesses. It is the application of ICT in government operations, achieving public ends by digital means. The underlying principle of e-government, supported by an effective e-governance institutional framework, is to improve the internal workings of the public sector by reducing financial costs and transaction times so as to better integrate work flows and processes and enable effective resource utilization across the various public sector agencies aiming for sustainable solutions. Through innovation and e-government, governments around the world can be more efficient, provide better services, respond to the demands of citizens for transparency and accountability, be more inclusive and thus restore the trust of citizens in their governments (UN, 2020).

E-Government: The World Bank Group has defined e-Government as "the use by Government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government… E-government can be defined as "*t*he use of information technology to support government operations, engage citizens, and provide government services". (West & Wind, 1996, p. 2)

Public Service: Public service such as transporter healthcare that a government or an official organization provides for people in general in a particular society to improve public services in the area (Deuter, Bradbery, & Turnbull, 2015).The International Labour Organization defined productivity as the ratio between output of wealth and the input of resources used in the process of production.

Theoretical Framework

This study adopts the Technology Acceptance Model (TAM) and the Push-ICT Theory. The theories are adopted because this paper is about the adoption of e-government for public service productivity, and is so used because government relies on the use of technology and it has to ensure a push especially where there are challenges of adopting or accepting relevant technologies to enhance e-government.

TAM is considered the most influential and commonly employed theory for describing an individual's acceptance of information systems. TAM, adapted from the Theory of Reasoned Action [Ajzen and Fishbein, 1980] and originally proposed by Davis [1986], assumes that an individual's information systems acceptance is determined by two major variables:
• Perceived Usefulness (PU) and
• Perceived Ease of Use (PEOU).

TAM evolved from Ajzen and Fishbein's (1980) Theory of Reasoned Action (TRA) to "provide an explanation of the determinants of computer acceptance that is

general, capable of explaining user behaviour across a broad range of end-user computing technologies and user populations, while at the same time being both parsimonious and theoretically justified" Davis et al. (1989, p. 985). TAM was a much simpler, easier to use, and more powerful model of the determinant of user acceptance of computer technology (Lee, et al., 2003). Carter and Weerakkody (2008) compared e-government acceptance in UK and USA. (Hu et al. 2011) extended TAM to investigate technology acceptance levels for a certain mobile technology

While (Lee and Park, 2008) noted that traditional TAM focused on technology adoption in volitional settings and the constructs of actual usage or intention to use, which are commonly included in volitional (traditional) TAM as the acceptance variable, does not imply the successful acceptance in a mandatory environment. Thus, the inherent challenges in its use and adoption. TAM tries to explain why people adopt or do not adopt a certain technology to perform a task (Wallace and Sheetz, 2014). This focuses on the challenges and the implications of its adoption, this because people may decide not to adopt it for reasons best known to them or may adopt it it because of some advantages. According to TAM, beliefs of users for a certain system affect their attitudes for the use of that system, which, in turn leads to actual system use (Joo and Sang, 2013).

To speedily realise the acceptance of ICT-based innovations, in this case e-government technologies, especially in societies where resistance is a common challenge, the Push-ICT theory becomes relevant. The theory stipulates that in a situation where Information and Communication technologies are considered important or relevant to societal development, such technologies should be deployed by the relevant stakeholders (government, non-governmental organizations or individuals). In this case, Federal Ministry of Communication and Digital Economy, National Information Technology Agency (NITDA), Nigeria Communication Commission (NCC can ensure the deployment and streamlining of ICTs for e-government.

- The relevant technology or services (e.g. AI software and devices, training to use the ICTs) should be made affordable. It can be deployed free or highly subsidized

- The deploying organization or individual would clearly identify workable benefits of ICTs for e-government and subsequently coerce the individuals or communities to use the deployed technologies or services.

- The push is usually through (a)policy framework (formulating policy that would make the use compulsory) in this case ensuring that ICTs for e-government purposes (b)social status push, which is as a result of status symbol ICT-user push (push as a result of seeing other people use and benefit from it, thus indirectly compelling others to use.

- Where ICTs remain unaffordable (may be as a result of poor implementation of policy) users can push ICT providers to offer affordable facilities and services through various consumer forums.

When there is easy and affordable access to ICTs for e-government,resistance to adopt and use is highly reduced and acceptance to use is greatly enhanced (Wilson, 2017, Wilson et al, 2019)

Method

The paper adopted the library research and secondary sources as method. Library research involves the step-by-step process used to gather information in order to write a paper, create a presentation, or complete a project, while secondary sources are studies by other researchers. Secondary sources describe, analyze, and/or evaluate information found in primary sources. By repackaging information, secondary sources make information more accessible (Rasmuson library, 2020). These methods are necessary because this is a concept paper that relied on research and studies by other researchers.

e-Government and Public Service Productivity

e-Government is important as a driver for public service productivity because the ultimate goal of e-Government is to be able to offer an increased portfolio of public services to citizens in an efficient and cost effective manner. E-Government allows for transparency in government. Government transparency is important because it allows the public to be informed about what the government is working on as well as the policies they are trying to implement. Simple tasks may be easier to perform through electronic government access. Many changes, such as marital status or address changes can be a long process and take a lot of paper work for citizens. E-government allows these tasks to be performed efficiently with more convenience to individuals (Adegoroye, et al.,2015).

e-Government is an easy way for the public to be more involved in Political campaigns. E-government helps simplify processes and makes access to government information more easily accessible for public sector agencies and citizens (Adegoroye, et al., 2015).

e-Government, have made significant advancement in utilizing the potentials of ICT for administrative efficiency, its adoption and implementation in Nigeria seem to have been a contention among scholars and practitioners. According to Hodos (2014), e-government has the potentials of improving internal operational efficiency of the public institution and also allowing direct access of the end users, by electronic means to the services offered electronically by the public institution. It entails mechanisms which convert traditional processes of government into electronic processes with the goal of introducing total transparency and accountability, reducing costs and improving productivity and performance leading to better governance.

E-government is important for public institutions to deliver public services more efficiently (United Nations Development Programme, 2008). This is because of the potentials of ICT to enhance consultation, openness, information, transparency,

participation, accessibility accountability, availability, timeliness and convenience, all which have been identified as key components of public service delivery (OECD, 1996).

Nigerian government through e-government initiative has introduced programmes such as the Treasury Single Account (TSA) and the Integrated Payroll and Personnel Information (IPPIS) to promote accountability and improve the effectiveness and efficiency of payroll administration for its Ministries, Departments and Agencies (MDAs). Whether this has helped in promoting accountability and effectiveness of payroll administration is subject of contention. This is because of the protest that greeted their implementation in Nigeria. The protest emanated from ASUU and SANNU. The government according to Aljazirah news said Since inception in April 2007, the IPPIS project has saved the Federal Government of Nigeria billions of naira by eliminating thousands of ghost workers, the department claims. While ASUU insists that IPPIS is not only a scam, but also negates the extant laws on University autonomy. Their Senior Staff Association of Nigerian Universities (SSANU) President Ibrahim noted that from January this year, so many anomalies have been witnessed in salaries of our members, from underpayment to overpayment and multiple payment among others. (Ajazirah, 2020 & Daily Trust, 2020)

This is consistent with the contention by (Viscusi, Batin & Mecella, 2010) who noted that the basic tenet of the model is that eGovernment programmes results in improved labour productivity in the public sector and, as a consequence, contribute to a number of intermediaries' results (better services costs, savings etc) and to the growth of GDP. The public sector, through ICT-driven innovations can proactively increase its ability to generate a positive non-neutral impacts on general growth. The main assumption is simply that the goal of a user-centred public administrations providing better services is achieved first of all through an increase in productivity enabled by reorganizations, training, and ICTs.

The technological scenario: where there is an upward trending delivery of ICT-based products and services does impact not only the delivery channel but also the time of delivery. The existence of private competitor services. An increase in the delivery of some kinds of public services through e-GSP (e-Government Service Provider) could induce an increase in the direct or indirect efforts of the public sector to provide better and quicker services (Viscusi, Batin & Mecella, 2010).

E-Government in Nigeria has been progressing steadily over the years, the e-government implementation framework has ruled out several citizen centric project, while the rage of e-government service is limited, the one that is available are very well developed (Adegoye, et al., 2015). From online registration and record management of citizen and business to online passport application are providing services to the citizen at their door step, (this reduces the length of time that might have been spend to process the license). The use of Integrated Public Payroll system (IPPIS) and use of the Treasury Single account (TSA) that serve as a custodian of all government funds that is domiciled in the Central Bank of Nigeria (CBN). These appear to have saved government funds through the activities of some fraudulent government officials. However, their

implementation was greeted with protest from government departments and parastatals. A case in point is its outright rejection by the Academic Union of Universities and PENGASSAN.

e-Government is important for public institutions to deliver public services more efficiently (United Nations Development Programme, 2008). This is because of the potentials of ICT to enhance consultation, openness, information, transparency, participation, accessibility accountability, availability, timeliness and convenience all which have been identified as key components of public service delivery (OECD, 1996). The adoption of e-government has the potentials of improving the internal workings of the Nigeria Public Service with new ICT-executed information processes. This is because efficiency and effectiveness are key success criteria of government involvements and ICTs increase the efficiency of government administration (this is a direct result of the replacement of street level bureaucrats by electronic information devices) and further enables more control of administrative activities of the workforce through the use of ICT application (Snellen, 2005).

Furthermore, e-government enables citizens to have access to relevant information which will boost their wider participation in the decision process in the form of continuous opinion polling, instant referenda, teleconferencing, digital cities, and discussion groups. In this regards, ICT can enhance interactive policy-making process for effective democratic governance in Nigeria.

Arjan de Jager (2008), however, noted that the adoption and the successful application of ICT by any government in its operation will depend on the a good understanding of the cost involved and the assured funding that follows careful analysis of its opportunity costs. This follows that the Nigerian Government must be genuinely committed to funding the adoption of ICT in its agencies. This government has done through the use of virtual meetings instead of physical ones during the Federal Executive Council (FEC) meetings and the meetings of the National Economic Council (NEC) to make keys decisions on the country and the economy. This apart from saving costs also assists in checking the spread of COVID-19 19 which is the reason for the adoption of these virtual meetings.

There is no doubt that the adoption of e government contributes greatly to GDP growth, which might have informed (Corsi and D'ippoliti, 2010) position that e-Government processes contribute to GDP growth along three channels:

1. Direct variations of the efficiency and efficacy of the public administration, leading to increases in labour productivity in the public sector. Given the number of employees in the Public Sector, the consequent increase in value of the public output will translate as growth in GDP (or, it is hypothesized that increases in productivity will be followed by less than proportional reductions of staff).

2. Direct impact on the private production of goods and services, thanks to multiplier and accelerator mechanisms connected with the public demand for investment goods and services (full employment is assumed not to obtain) and the creation of public

capital in the form of material and immaterial infrastructures, assumed at least partially to constitute positive inputs also for production in the private sector.

3. Direct impact on growth in the private sector generated by the stimulation to innovate, and by the contribution to the competitiveness of the economic system stemming from the changed composition of public demand, oriented (in the case of e-Government processes) towards markedly innovative, high value added goods and services.

The challenges of e-Government for Public Service Productivity

Despite the modest achievement of e-Government in Nigeria, it is however, not without challenges. Nigeria is facing a number of challenges in the introduction of e-Government. Challenges to Nigeria's e-government efforts are well documented. One is the socio-economic inadequacies that exist in countries belonging to the Sub-Sahara region. Other identified challenges include, poor organizational skills, inadequate infrastructural support and poor or limited human capital resources (Ifinedo, 2005).

Another challenge according to (Olufemi, 2012), is to overcome uncoordinated activities within the federal, state and local governments and within agencies of the same ministry or within ministries that have similar functions or responsibilities.

A major challenge is creating and retaining government capacity to manage the relationship with the private partner in PPP projects as well as to manage the changes associated with the shift from traditional to digital systems. Aside from insufficient skills and resources, problems have occurred with government institutions not showing sufficient respect for e-governance PPP contracts (Olufemi, 2012).

Another challenge has to do with the poor perception of e-government by employees who feel that the use of Information and Communication in governance is meant to displace some of them aside from leading to job losses and jobs hitherto done by them will be taken over by computers. This is aptly captured by Yusuf (2005) who noted that many laudable projects in Nigeria Public Service die at the instance of corrupt practices among government officers and electronic government can suffer the same faith. Every loophole for embezzlement of funds allocated for projects must be blocked while agencies for curbing corruption must be empowered for objective tackling of corrupt cases. Equally important is the deep rooted resistance to digitalization among Nigerian civil servants. Many civil servants are afraid of computerization because of the thinking that such will render some of them redundant (Yusuf, 2006).

The Implications of e-Government for enhanced Service Delivery in the Nigeria's Public Service.

The adoption of e-government has its own advantages and disadvantages. "E-government aims to enhance access to and delivery of government services to benefit citizens. More important, it aims to help strengthen government's drive toward effective governance and increased transparency to better managing country's social and economic resources for development". (Solinthone, & Rumyantseva, 2016 pp 1)

This is the reason given by President Goodluck Jonathan in 2010 in Nigeria. When he noted in October 2012, which by introducing the TSA by his administration had, not only brought down the fiscal deficit, "we have enhanced the predictability of public expenditures. Our Integrated Payroll and Personnel Information System (IPPIS), Government Integrated Financial Management Information System (GIFMIS), improvement in Cash Management System through treasury single account(TSA), and other non-financial reforms, have greatly improved the nation's financial management system and accountability" (Yusuf & Chiejina, 2015:10). (Yusuf as cited in Yusuf, I. A and Chiejina, N. (2015),)

e-Government in Nigeria has been progressing steadily over the years, the e-government implementation framework has ruled out several citizen centric project (OECD, 2003) (cited in Adegoroye, & Yinus, 2015) , while the rage of e-government service is limited the ones that available are very well developed. From online registration and record management of citizen and business to online passport application are providing serious service to the citizen at their door step. (Adegoroye, & Yinus, 2015)

However, it was not without challenges, for instance the challenges of implementing e-governance in Nigeria as: Nigeria government face the challenges of insufficient resources and capabilities to promote the technological and managerial knowledge required to successfully deploy e-governance services. (Yusuf, 2006). Complicating the matter further is that Nigeria like other developing nations often adopts ICTs that are developed in the Western world and transfer to them which may pose context related challenges (Ndou, 2004, Yusuf, 2006) (in Rahim, AG, Akintunde, O, Obanla, R. O, R & Aremu, N.S. 2017)

Conclusion

The paper concludes that e-Government has been a key driver in public service productivity, because it leads to increases in labour productivity in the public sector given the number of employees in the Public Sector (LPS), the consequent increase in value of the public output (YPS) will translate as growth in GDP very well developed. From online registration and record management of citizen and business to online passport application are providing services to the citizen at their door step.

And that e-government seen as a global phenomenon is an institutional mechanism for driving efficiency in the public sector to achieve good governance and to improve the quality of public service delivery.

This is because efficiency and effectiveness are key success criteria of government involvements and ICTs increases the efficiency of government administration (this is a direct result of the replacement of street level bureaucrats by electronic information devices. This was done because of its usefulness and perceived ease of use) and further enables more control of administrative activities of the workforce through the use of ICT application (Snellen, 2005).

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