DIGITAL GOVERNANCE AND ITS IMPACT ON PRODUCTIVITY IN THE NIGERIAN PUBLIC SECTOR

CINJEL, Nandes Dickson
Department of Public Administration, Faculty of Management, Federal University Wukari, Taraba State

CHUJOR Okwah Fortune
Department of Public Administration, Faculty of Social Science, University of Port Harcourt, River State
Corresponding Author's Email: ncinjel@yahoo.com
Contact: 08065444172

ABSTRACT

Digitalized governance is a government that operates using digitalized technology; it is the application of digital technology in government. This study examined the impact of digital government on productivity in the Nigerian Public Sector. The study gives much accentuation to the practice in INEC and FRSC. The study is non-experimental research and as such, Mixed Method Research Design was employed. Krejcie and Morgan Table was used to determine the sample size of the study. The data of the study were generated from array of both published and unpublished documents (Textbooks, Journals, Newspaper, Magazines, internet materials, etc.). The study found that digital technology has significant benefits in the Nigerian Public Service. The study also found that factors such as insufficient tools, poor usage, maintenance, network, among others affect the application of digital technology in Nigerian Public Sector. The study recommends that Nigerian government, INEC and FRSC precisely need to adequately train all workers on how to use technologies and know the need for the sufficiency and maintenance of the tools, among many others.

Keywords: Digital government, Technology, Public Service, Productivity, INEC and FRSC.

INTRODUCTION

Digital governance otherwise known as e−government and digitalized technology in government is an evolving practice in modern governance and is more predominantly put into practice by the developed societies than among developing societies (Benson, 2020). Digital government does not only enhance stakeholder's contribution to national and community development but has also deepened the process of governance and improves efficiency and effectiveness of service delivery in the public sector (Cole, 2020). Digital government has received a worldwide acceptance due to the various transformations it has brought in governance; modern state as an independent government has transited from old analogical practices which use to be slow, weak and complex to a simplified, fast and result oriented practice (Cole, 2020). Developed societies achieved their position of eminence by means of digital approach and this has helped to streamline a lot of long and orthodox procedures that were cumbersome, rigid and ungainly (James, 2019)

Digital government is still at its infancy in developing societies like African states, yet within this brief period of its emergence, it has made a tremendous impact on all facets of governance (Cole, 2020). There is not any unit in a modern state that digitalized government has not impacted, it is in the office, home, factory, and all areas where human involvement is essential (Benson, 2020). A lot of persons have narrowed the application to only the usage of networking, online technologies such as internet, www, intranets, extranets, online database, integration of information systems and mobile communication (Cole, 2020). This is why it is

seen as online government or internet-based government but there is more to this narrowed view (Cole, 2020).

There are also non-internet electronic government technologies and notable among these are: fax, SMS, text messaging, MMS wireless networks and services, Bluetooth, CCTV tracking systems, bio−metric identification, road traffic management and regulatory enforcement, electronic identity cards, smart cards and many more (Benson, 2020). The Nigerian government at all the three (3) levels has digitalized its operation and practices; this has helped the government to increase portfolio of public services to citizens in an efficient and cos- effective manner (Yusuf, 2020). Government ministries, department and agencies such as Nigerian Immigration Services (NIS), Nigerian Custom Service (NCS), Federal Road Safety Commission (FRSC), Nigerian Drug Law Enforcement Agency

(NDLEA), EFCC, Federal Inland Revenue Service (FIRS), Joint Admission Matriculation Board (JAMB), National Examination Council (NECO) and many others have benefited from the juicy part of digital government in Nigeria (Yusuf, 2020). The practice of e-government in the Nigerian public sector is a welcome development that has helped to set the public service in a right path along with its contemporaries in other societies (Yusuf, 2020). It has also opened ways for citizen participation in governance through free flow of information, transparency and accountability. This study was structured into five (5) segments and the first segment was the general introduction and this comprises the nature of digital government and its interplay with productivity in the Nigerian Public Sector. The second segment is the problem statement and it was stated along with the posited research questions and objectives of the study. The third segment was predicated on conceptual framework and the overview of literatures which were utilized in the study. The fourth segment captured the characteristics, benefits, classifications, historical development in Nigeria and nature of digital government in the Nigerian public sector. The last segment was the conclusion.

Statement of the Problem

Digital government otherwise known as e-government cannot be used successfully in developing societies due to low literacy level; computer and communication technologies are relatively new and its operations required thorough knowledge of the technologies. The transition from hand to machine, paper to soft copy applications and file to database storage is too slow in most of this third world countries and Nigeria precisely. This is as a result of the low literacy level of the available work forces that abound in the society. In the Nigerian public service, merit, competence and training most at times are being ignored and this makes progressive changes and reforms which require learning like the application of ICT in governance a cumbersome and herculean task.

Another problem that motivated the study is the lack of awareness on the role that digital technology plays in governance in the third world countries and Nigeria precisely. A lot of employees in the Nigerian public service have myopic knowledge and are too rigid to assimilate changes associating with digital technologies and thus sees it as a tool which government is using to restrict their activities and influences its policies on the citizens. More so, the digitalize technology has opened government information vulnerable to attacks – scam, fraud, swindle, double dealings and many other crimes. It has also made it very simple to the government to access information easily on its citizen and personal privacy is no longer secure as it was during the archaic era. It is against this backdrop that the following research

questions were posited to guide the study; what is the nature of digitalized government in the Nigerian Public Sector, what are the benefits of this digitalized technologies to the Nigerian Public Sector, what are those factors that pose serious threat to the practice of digital governance in Nigeria, what mechanism can be put to strengthen the application of digital governance in Nigerian Public sector?

The central objective of the study is to examine the impact of digital government on productivity in the Nigerian public service while the specific objectives are to: examine the nature of digitalized technologies in governance in the Nigerian public sector, assess the benefits of digitalized technology and its impact on productivity in the Nigerian public sector, determine those factors that threatened the practice of digitalize technologies in the Nigerian public sector and to provide mediums in which the juicy part of digitalize technologies can be harnessed for higher productivity in the Nigerian public service. The study limited itself to two public organizations (Independent Electoral Commission and Federal Road Safety Commission). The study covers the period of five years (2018 to 2023) and emphasis was laid on their operation at their national headquarters and the beneficiaries of their service.

Conceptual Clarification

Concept of Digital Government

The term digital government has been defined in a lot of ways in different times by different scholars (Stephenson, 2017). It is easier to be identified than to be defined and this is due to the complexity, dynamism and continual transformation in knowledge and learning and human knowledge. According to Debie (2010), digital government is the employment of the internet and the World Wide Web (www) for the delivery of government information and services to the citizens. Sani (2011) sees digital government as the utilization of information and community technologies (ICT) and other web-based telecommunication technologies to improve and enhance the efficiency and effectiveness of service delivery in the public sector.

According to Johnson (2013), digital government is a broad concept with diverse meaning and application. He went further to stress that it is a concept that define the usage of modern technology, science and innovation in government. Espousing on the view, Collins (2013) defined digital government as the use of technology to facilitate the operation of government and the dispersing of information and service to the citizen. Ahmed (2020) has provided what may be regard as a summation of the varied definitions of digital government and a listing of its major elements. We can deduce from the foregoing definition that digital government entails the following; the application of technology and service in governance, the application of skills, expertise, invention and innovation in governance, the provisioning of information and improvement in communication by the government to the citizens efficient and effective ways of providing functional services to the citizen The usage of both internet and non-internet facilities to spread information and provide service by the government to the citizens. Modern upgrade through the usage of ICT to provide effective, efficient and convenient service to the people.

Concept of Productivity

Productivity has now become an everyday word. It is crucial to the economic progress of the country. A major problem with productivity is that it means many things to many people. Economists define it from GNP, managers view it as a cutting and speeding up, engineers think of it in terms of output per hour. Today, the term productivity has acquired a wide meaning. Originally, it was used only to rate the workers according to their skills. Subsequently emphasis was laid to improve the hourly output by analyzing and improving

upon the techniques applied by different workers. The European Productivity Agency (EPA) (2003) has defined productivity as:

> *An attitude of the mind; It is the mentality of progress of the constant improvement of that which exists. It is the certainty of being able to do better today than yesterday and continuously. It is the constant adaptation of economic and social life to changing condition. It is the continual effort to apply new techniques and methods and the faith in human progress* (EPA, 2003; p. 5).

The above definition equates productivity to an effective integration of resources, physical and human, will, yield and high output. It fails to mention attribute such as time and resource contributed. Mali as cited in Nwachwuku (2003) sees it as the measure of how well resource is brought together in an organization and utilizes for accomplishing sets of results. That is the effectiveness of the factors of production to produce goods and service. In the same vein, Telsang (2007) opined that it is the quantitative relationship between what is produce and use as resources to produce them. How to improve the productivity of Nigeria employee has been the topic of many seminars, symposia, conferences and workshops. It is a recognized fact that productivity is the critical factor in economic and social development of a society. Nigerian employees are said to have poor attitude to work resulting to lower productivity. Commenting on the low productivity of Nigerian employees, Eze (1999) in Nwachukwu (2013) observed:

> *Many achievement-oriented, shrewd observers of Nigerian people at work have always come out with a common impression that generally Nigerian workers are lazy, slow, sleepy, reluctant to act, unconcerned and deceitful in their approach. These workers are said to lack the zeal, the briskness and the momentum of hardworking people and generally, he dislikes to hear anybody talk about efficiency* (Nwachuku, 2013; p. 67).

Although the descriptions may be too strong, the situation which the author is trying to portray is real but he fails to made mention of the causes and justification of such actions. Some of the notable and well-known attribute of digital government are as follows; It is internet based (online) – website, virtual information superhighway and data highway. It is also non–internet based – telephone, SMS, MMS, wireless networks and services, Bluetooth, CCTV, Tracking system etc. It is chiefly the product of science and technology, its essence is to promote efficiency and effectiveness in service delivery and its primary delivery model is government to citizen, government to consumer, government to government, government to another country and government to customer.

The classification of digital government is as follows: government to government (G2g): This is type that is being operated or practiced between one government unit to another or among units of government. Common example is a digitalized relation between tiers or organs of government, government to business (G2B), government to citizens (G2C), Government to other Sovereign States (G2Ss) and government to NGOs(G2N). Some of the notable roles that digital government has played are as follows: Promotes transparency in governance, efficiency in Governance, accountability in government, and cost effectiveness. Some of the notable challenges of digital government are as follows: expensive, relativity, increase in joblessness, dehumanization, increasing cases of fraud, complexity and conflict with a lot of Management Principle

Historical Evolution of Digital Government in Nigeria

The historical development of digital government in Nigeria is unclear, fragile and very complex due to lack of concrete activities and functions to identify it (Watson, 2010). The best way to describe the origin of Digital government in Nigeria is to project on the various phases of government in the country and how they have exploited the digital tools in governance and in providing service to the citizen (Lucy, 2010). The knowledge of historical science has shown that during pre – colonial epoch, there was nothing like digital government – life was too primitive, raw, and brutal and it was characteristically not on reason and science. It was like during the primordial period which great thinkers of old – *Hobb, Aristotle, Plato, Aquinas*, and *Machiavelli* called the state of nature (Cinjel el a, 2015). Every society during that epoch and the individuals and groups in those societies only struggles to meet their end meets and as well better their ulterior motive as against making life very simple and convenience for all (Bello,2010). Common wealth and general interest was not the goal of those classical societies; and this could be as a result of the fragmented and uncoordinated nature of groups which were only united by natural factor such as ethnicity (Bello, 2010).

Colonialism was another epoch that has first laid the concrete ground for the practice of digital governance in Nigeria (Johnson, 2013). It first unites the people and makes the society governable after the scramble and partition of African's areas into countries and self-governing units (Smith, 2015). The first landmark of digitalized government was the turning of the scattered settlement and the dispersed group of people into governing unit known as the state and the usage of tools such as *compass, clock, watch, papers, pens, typewriters, file* and many others to help government in carrying its activities to the citizen (Smith, 2015). Others have argued that it encompasses things like the introduction of schools (learning centre), religion, the application of industrial relation principle in a work place, the use of crude tools like *–dynamite, dynamo, detonate, silo, elevator, shell, projectile, grounder, hover mower* and many others that were used to exploit natural resources of the local people and the innovation in agriculture manifested in the transformation from subsistence nature of production to commercialized type of agricultural production (Smith, 2015).

Bello (2010) identified factors such as the upgrade of common sense, rationality and acceptable of the value of humanity as against the barbaric nature that was characterized by activities such as – war, dispute, sentiment, among many others as some of the facets of digitalized government during the epoch of colonialism (Sani, 2018).The dawn of independence in the late 1950(s) and the 1960 also has a significant impact on the growth of digital government in Nigeria (Sani, 2018). The period has brought a lot of innovation to the activities of the state – both governance and administration (Sani, 2018). It was at this period that the concept of state was clearly define in Nigeria – *sovereignty, legitimacy, constitution, freedom, democracy and government* (Clark, 2019). Apart from the mentioned terms that were seen as the soft side of digitalized government, there were invention and innovation such as the use of desktop computers, media houses (TV and Radio stations), the use of telephone, postal service, printers, telegraph, camera and many others (Clark, 2019).

In the 1990(s) and with the sophistication in science and technology, the previous mentioned equipment were seen as obsolete and antique; they were re-classified as analog and thus the birth of the word digital – the transformation based on numeric codes and those practices that are done with ease, proficiency, efficiency, cost reduction and ecofriendly (Clark,2019). It was at this time that the country launched its first satellite like other nations and ministries such as- science and technology, communication, information and many others were created to further consolidate the application of digitalized government in the country. The period

was largely characterized by the usage of non – internet digital functions and tools such as – use of smart card, computerized license, satellite, private media stations, dictating machines, ATM, voice recording machines, scanner, chips and many others to help the government in relating with its citizens, customers and other nations (Ken, 2020).

The year 2000 otherwise known as the Y2K and millennium year has also sharpened the growth of digital government in Nigeria. The democratic system of government that was reinstated and the overhaul in the world of science and technology has impacted on digital government in Nigeria (Saleh, 2020). There was change in the style of governance and the international communities that were previously against the country due to its military interregnum that were autocratic and dictatorial redefined its mandate and approach toward the country. This has brought a lot of innovation such as the commonality of scientific tools-fax, mobile phones, internet services, SMS and MMS wireless network, Bluetooth, CCTV systems, biometric identifications and the usage of many sophisticated tools that were fast, efficient and makes work easy in governance than it was in the past (Saleh, 2020). The birth of this tools simplified governance and made government to improve in broad stakeholder's contribution to national and community development as well as deepen the governance process. The table below shows the summary of the historical development of digital government in Nigeria.

Table 1: Historical development of digital governance in Nigeria

Stages	**Contribution**
Pre – colonial	Life was primordial and unguided
Colonial	The coming of the white, unification of diverse ethnic groups and usage of tools such as – compass, map, schools
Independent period	The birth of sovereignty, legitimacy, freedom and acquisition of national help. The usage of tools such as – typewriter, printer, desktop, type writer, camera, telephone, radio and TV
1990s	First satellite, smart card, license
Y2K	Online service, internet, tracker, network, emails etc.

Source: Researcher's Field Work, 2021.

Digital Government and Productivity in the Nigerian Public Sector

The public sector or the entire public service does not give much emphasis to productivity like it is in the private sector and other non – governmental organization (Okeke, 2010). This is based on the justification that their services are purely rendered for the benefit of the society and what they sees as productivity is the functionality of service delivery and its expression in term of satisfaction, legitimacy and acceptability from the citizens (Olufemi, 2012). The public sector concentrates on intangibilities such as the general interest and well-being of the people and this has made the measurement of productivity very complex and complicated (Singh, 2010). Just like other public goods and services, digital government has contributed enormously in the Nigerian public sector.

Government ministries, agencies, commission, parastatal, and other agency in Nigeria uses tools of digital technology to provide effective service to the citizen (Ayo and Ekong, 2008). This can be seen in the use of internet, intranet, trackers, scanners, microchip technology, microelectronics, computer electronics, integrated circuit technology, Semi-conductor technology and electronic engineering, telecommunication, and computing knowledge (Backus, 2010). The use of digital technology has simplified a lot of actions in the public sector and has made governance very easy, convenience and effective (Mutula, 2012). The

era of using of chuck of papers, files, queuing to register an activity and long culture of waste has been laid to rest with the invention and innovation in digital technology (Sunday, 2017). Benson (2020) enthused that digitalized government may be new and very expensive among the third world countries but its gains out-weighted the gone time of analog tools where a public servant will be forced to travel from a remote to a far distant urban centre for an activity or function that can be performed online in just a second.

Corroborating on the above assertion, Ahmed (2020) stressed that the advance in digital governance has break the chain of layer government; where hierarchy and rules are placed or over-emphasized above efficiency, convenience and result. In the Nigerian public sector, the application of digitalized government has led to a lot of transformations and innovations in number of functions and activities (Azogu, 2013). In Nigeria, both the internet and non – internet application are used in all ministries, paramilitary (Nigerian Custom Service, Nigerian Immigration Service, Civil Defense), military (Air Force, Naval and the Army), Commissions, Agencies and Boards (FRSC, NDLEA, EFCC, NECOM, INEC, JAMB), Police Force and many others.

The role digital technology has played and it is still playing governance may be difficult to be quantified but it has simplified a number of task and brought a lot innovation on how function are to be carried with ease and with lesser cost (Azogu, 2013). Aliyu (2010) in his study of the past and present lives applauded the control of leakages in government revenue, monitoring of fraud and crime, improved working condition and simplified method of storage and communication to the innovation of digitalized government. He went further saying that digitalized government has simplified government, introduced transparent and has brought government more closely to the people. He argued that the birth of digital government is more of a blessing than a curse to both developed and developing society.

It has made a lot of service, activities and functions to be accomplished within a twinkle of an eye and it has reduced cost and brought a lot of innovation. A retiree no longer needs to travel from his village to withdraw his pension in the city. Information of government can be accessed by all and conference can virtually be done by different persons at different areas without stress and many others. The only challenge common with digitalized government in Nigeria is the abuse and expenses associated with its acquisition, installation and maintenance (Aminu, 2013). There are also high cases of open attack by scammers, fraudsters and other cyber criminals. The table below shows some government units, tools of digitalized government and how it has simplified their activities.

Table 2: Tools of Digital Governance and the Nigerian Public Sector

Units	Tools of Digital Government
MDs	Internet, data capturing machine, computer, internal TV etc.
NIS	Radio paging, Trackers, scanner, internet, etc.
NCS	Dictating machine, trackers, internet, etc.
FRSC	Intercom, Telephone, license, identification card, Registration number, etc.
NDLEA	Drug tester, drug dictator, website, internet, etc.
EFCC	Computing electronics, cyber breaker, internet, and website.
FIRS	Computing electronics, scanners, trackers, etc.
JAMB	Computer, internet, website, thump printer dictator, etc.
NECO	Website, internet, computing machine, scanner, etc.
Police Force	Voice dictator, radio paging, tester, trackers, etc.
Naval	Computing electronics, forecaster, website, internet, etc.
Army	Radio paging, intercom, internet, website, etc.
Air Force	Forecaster, computing electronic, internet, website, etc.
NBC	Website, internet, sound recorder, intercom, etc.
NBS	Smartcard, website, computing electronics, etc.
NAFDAC	Drug tester and dictator, scanner, tracker, etc.

Source: Researcher's Field work, 2021.

Based on the objectives of this study, we propose the following hypotheses:

(a) Digital governance has significant benefits on productivity in the Nigerian Public Sector
(b) Certain factors affect the application of digital technologies in the Nigerian Public Sector

Theoretical Framework

Instrumentalism theory of technology was adopted as the theoretical underpinning of the study. It was propounded by *Ernest Burkman* in 1987. The theory states that technology is an instrument that is designed to promote efficiency. The theory states that technology in itself does not fail, that what can lead to its failure is either lack of awareness, maintenance and other network glitches. The theory has the following tenet, technology is an instrument, technology promotes efficiency, technology works on how he is being managed and technology brings innovation

Classical studies affirmed that the history of technology began with the homo-sapiens; a higher human with high intelligent. The cradle of technology has a long history but the society at the primordial period did not value it importance. Notable scientist like Archimedes, Pythagoras, Leonardo Dan Vinci, Galileo-Galileo, Spinoza, Ptolemy, Rene Descante and many others sacrificed a lot to lay the foundation of technology but the human society sees their knowledge as gross rebellion against societal belief system and ancient monarchs. What reshape and reproduces their ideas was the emanation of renaissance, age of reason and enlightenment, and the industrial revolution. These were some of the activities that paved way for the growth of technology and societal transformation. The human society became a global village; there were a lot of adventures and transformation. It was during this period that most societies were transformed into states and the state sees the need to introduce technology to promote good governance. It was in the 18^{th} century that things like electricity, telephone, computer, radio, telegraph, car, and airplane became common and were

sufficiently use by state to run its activities. It was in the 19th century that things like internet, wireless network and many other technologies were involved and many other technologies were invented and more sophisticated ones were introduced to replace the analogy types.

Nigeria after gotten its independent in 1960 was not left behind; the country adopts and operates it affairs with some of the technological tools and the essence was to promote efficiency in governance. It was common in the 1970s and 1990s; several government Ministries, Department, Agencies, Commissions, Parastatal of the state were using the tools for different purposes. It became too common in 2000s; wide range of functions such as recruitment, payment, registration, accessing of information, production, tracking, and control, among others were digitalized. The usages of the technologies have brought a lot of innovation in governance - convenience, flexibility, transparency, among others. The only issues that constraint their operation are its abuses, poor maintenance, network glitch and the cost of procuring them.

METHODOLOGY

The study employed mixed method research design. This is because the data used for the study were both qualitative and quantitative in nature. Beside this, survey was also used to elicit information from the organizations and the beneficiaries of their service. The population size of the study is 53827, i.e. the total number of staff in the two selected organization. We used Krejcie and Morgan formula to determine the sample side. Bourdley Proportional formula was also used to distribute the sample to the two organizations.

Table 3: Population and Sample Size of the Selected Organization

Organizations	Population	Proportional Size
INEC	27,810	77
FRSC	26,017	73
Total	53,827	150

Source: Information Units of INEC & FRSC, 2023

Simple and area sampling techniques were utilized. The data of the study were generated from both the primary and secondary sources (Books, Journals, Internet materials, Newspaper, Handbook of the organizations, etc.). The main instruments for data collections were interview, observation and questionnaires. The questionnaires have 17 items and are designed into 3 sections - bio data of the respondents, benefits of digital governance and factors affecting its operation. We subjected the instrument to face and content validation; they were given to 3 experts specializing in digital technology in the department of Public Administration (FUW) to scrutinize and inspect the instrument. We equally subjected the instrument to internal reliability test and we use Cronbach's Alpha to determine the co-efficiency of reliability test which is 0.8 on the rater scale of one.

RESULTS

In conducting the study, we administered 150 questionnaires to the two organization and we were able to retrieve 145 and this 97% rate of return. Interview and observation were used to corroborate the data obtained from the field.

Table 4: Bio data respondents

S/N	Nature	Category	Number	Percentage
1	Seep	(a) Male	75	59
		(b) Female	60	41
2	Age Bracket	(a) 18-30	45	31
		(b) 31-40	55	38
		(c) 41 and above	45	31
3	Qualification	(a) SSCE/NECO	35	24
		(b) Diploma/NCE	30	21
		(c) First Degree/HND	51	35
		(d) Postgraduate	29	20
4	Level	(a) Junior Staff	55	66
		(b) Senior Staff	50	44

Source: Researchers Field work, 2023

The table above shows that 85 of the respondents representing 59% were from the male folk while 60^0 representing 41% were from the female folk. 45 of the respondents representing 31% falls within the age bracket of 18 to 30, 55 of the respondents representing 38% were between the age brackets of 31 to 40, another 45 of the respondents representing 31% were within the age bracket of 41 and above. In the study, 35 of the respondents representing 24% were the holders of SSCE, 30 representing 21% were holders of Diploma and NCE, 51 representing 35% were the holders of first Degree and HND, and 29 representing 20% were the holders of postgraduate qualifications (Postgraduate Diplomas, Masters' Degree & PhD). Also in the study, 95 of the respondents representing 66% were Junior Staff while 50 representing 44% were officers at the senior level. This thus shows that the inclusivity of all gender, age group, different holders of certificate and level of personnel in the study.

Table 5: Benefits of digital governance in INEC & FRSC

S/N	Items	SA	Responses (%)	A (%)	U (%)	D (%)	SD (%)
5	It makes work simple	100	(69)	25(17.2)	10(6.8)	5(3.4)	5(3.4)
6	There is high level of profiting	100	(69)	25(17.2)	10(6.8)	5(3.4)	5(3.4)
7	It makes work fast	100	(69)	25(17.2)	10(6.8)	5(3.4)	5(3.4)
8	High level of flexibility	95	(66)	20(14)	10(6.8)	5(3.4)	5(3.4)
9	Transparency	95	(66)	20(14)	10(6.8)	5(3.4)	5(3.4)
10	There is easy access to information	95	(66)	20(14)	10(6.8)	5(3.4)	5(3.4)

Source: Researchers' Survey, 2023

The table above shows that 100(69%) strongly agreed that digital governance simplify their work, another 25 (17.2%) also subscribed the view, 10(6.8%) of the respondents were indecisive, 5(3.4%) of the respondents disgraced and another 5(3.4%) of the respondents strongly acknowledged the fact that the digital technologies have brought high level of proficiency on their work, 25(17.2%) of the respondents also acknowledged the view, 10(6.8%) of the respondents were uncertain, 5(3.4%) of the respondents opposed the view and another 5(3.4%) of the respondent strongly rejected the view.

In the study, 100(69%) of the respondents strongly subscribed to the view that digital technologies make their work fast, 25(17.2%) of the respondents also subscribed to the view, 5(3.4%) of the respondents rejected the view, in the study, 100(69%) of the respondents strongly subscribed to the view, 5(3.4%) of the respondents rejected the view and another

5(3.4%) strongly opposed the view. In the study, 95(66%) of the respondents consented the view that the digital technologies have brought high flexibility on the job, 20(14%) of the respondents supported it, 10(68%) were not sure of their view, 5(3.4%) of the respondents opposed the new and another 5(3.4%) strongly opposed the view. In the study, 95(66%) of the respondents attested that the digital technologies have brought transparency in governance, 20(14%) supported the view, 10(6.8%) were indecisive, 5(3.4%) of the respondents opposed the view and another 5(3.4%) strongly opposed the view. In the study, 95(6.8%) of the respondents strongly supported the view that the introduction of digital technologies on governance have brought easy access of information, 20(14%) also subscribed to the view, 10(6.8%) were indecisive and 5(3.4%) of the respondents were not in agreement with the view.

Table 6: Constraints to the practices of the digital governance

S/N	Items	SA	Responses (%)	A (%)	U (%)	D (%)	SD (%)
11	It is expensive	95	(66)	20(14)	10(6.8)	10(6.8)	10(6.8)
12	Problems of maintenance	95	(66)	20(14)	10(6.8)	10(6.8)	10(6.8)
13	Abuse of the tool because it owned by the government	100	(69)	25(17.2)	10(6.8)	5(3.4)	5(3.4)
14	Network issues	100	(69)	25(17.2)	10(6.8)	5(3.4)	5(3.4)

Source: Researchers' Fieldwork, 2023

The table above shows that 95 of the respondents representing 66% strongly acknowledged the fact that the digitalized technologies were expensive, 20 of the respondents representing 14% also supported the view, 10(6.8%) of the respondents rejected the view and another 10(6.8%) strongly opposed the view. In the study, 95 of the respondents representing another 66% of the researchers strongly acknowledged the fact that lack of maintenance of the digitalize technology is one of the facts affecting its implementation, 20(14%) of the respondents also subscribed to the view, 10(6.8%) were not sure of their stands, another 10(68%) rejected the view and another 10(6.8%) of the respondents strongly opposed the view. Also in the study, 100 of the respondents representing 69% strongly attested to the view that the technologies are being abused because it is regarded as government properties, 25(17.2%) of the respondents also supported the view 19(6.8%), were not sure of their view, 5(3.4%) of the respondents rejected the view and another 5(3.4%) strongly opposed the view. In the study also, 100 of the respondents representing 69% strongly suggested the view that network glitches were serious issues that constraint operations of some of the technologies, 25(17.2%) of the respondents also subscribed to the view, 10(6.8%) of the respondents were not certain of their view, 5(3.4%) of the respondents opposed the view and another 5 of the respondents representing another 3.4% strongly opposed the view.

Hypothesis One (1)

A regression analysis was used to examine the relationship between digital technology and productivity in the Nigerian Public Sector. The regression analysis model of the predicator produced a R1 0.945, 2004 618, PL.005. The estimation and analysis of the regression was done using the Statistical Package for Social Science (SPSS) computer software version 23. The summary of the regression analysis results of the data were collated and presented in the table below.

Ho: The application of digital governance has no tremendous benefits to the Nigerian Public Service.

H:1 The application of digital governance has no tremendous benefits to the Nigerian Public Service.

Table 7: Summary results of regression analysis

Variable	Prob.	Coefficient	Std. Error	t-statistics
Constants	.000		4.743	-34.570
Predicator	.000	.993	4.596	9.029

R= .g72[9]
R^2= 946
Std. Error of Fst = 24.801
Adjusted R^2 = 945
F = 2094.618
P = .000[b]

Source: Researcher SPSS Computation, 2023

The model summary of the table above provides R, R^2 and adjusted R^2 and the standard Error of the estimate, which determines how well the regression model fits the data. An adjusted R value of 0.945, in this case indicate a very significant level of predication. The R^2 column represents the R^2 value which is the proposition of the variance in the independent variable that can be explained by the independent variables. Form the table, the value of R^2 shows that the independent variables. From the table, the value of R^2 shows that the independent variable explains 94.6% of the variability of the independent variable (productivity) while adjusted R^2 statistics compensates for the number of variables in the model and it will only increase if added variables contribute significantly to the model.

Hypothesis Two (2)

In this test, we used *chi-square* to test the second hypothesis of the study. The formulated hypothesis is:

a. **H_0** : The practice of digital governance has not be constraint by several factors in the Nigerian Public Sector.
H_1: The Practice of digital governance is constrained by several factors in the Public Sector.

Table 8: Pearson chi-square test of hypothesis two (2)

	f-value	**DF**	**Asmp. Sig. (2 sided)**
Pearson chi-square	120.21	8	.000
Like hood Ratio	333.01	8	.000
Linear-by linear Association	73.101	1	.000
N of valid cases	400		

Source: Researcher SPSS Computation, 2023

From the computation above, Pearson chi-square (calculated value i.e x^2cal is 120.21 and the tabulated value (x^2tab) is 17.70 at 8 degree of freedom (df) and 0.05 alpha level i.e. x^2cal = 120.21, P>0.05. This shows that the Pearson calculated value is greater than the chi-square tabulated value. On this ground, we reject the null hypothesis and accept alternate hypothesis and concludes that the practice of digital technologies is constrained by several factors in the Nigerian Public Sector.

DISCUSSION OF FINDINGS

a. In the course of carrying out the study, we found out that the application of digital technologies have significant benefits to the Nigerian Public Sector. We found that the digitalized technologies in governance have a lot of benefits; it has made work to be simple, proficient, fast, flexible, transparent and easily accessible. It is used to carry out transactions, registrations, tracking, and monitoring in Federal Road Safety Commission. In INEC, it is use for voters' registration, voters' identification, storage, collation, among others. In FRSC, some of the digitalized technologies are: car trackers, portal, capturing machine, servers, radio pager, license production machines, city monitors, among others. In INEC, some of the digitalized technologies are: Electorates Data Capture Machine, BVM, IREV, Portal, INEC server, smart card etc.
b. The study found that several factors affect the efficiency of the digitalized technologies. Some of the constraining factors found are: Inadequacy of the tools, problem of maintenance, abuse by personnel, network issue, among many others. The mentioned factors pose a serious threat to the operation and practice of digital technologies in the INEC and FRSC.

CONCLUSION

Digital government otherwise known as e-governance, digital technologies in governance and ICT in governance is an innovation in the application of ICT by a state to promote efficiency, effectiveness and optimization in service delivery. It is seen as a nascent development among the third world countries and most especially those states that were previously backward in term of resources and literacy. Digital as the name implies emphasis the processing, storing, transmitting, representing and displaying of data in the form of numeric digits.

Digital governance is not a static word or concept; its usage as a tool and where it is to be used, make it very complex to be conceptualized. Developed societies like USA, England, France, China, Japan and many others have witnessed various stages of digital governance and what most of these mentioned states equate to as analogy tools or traditional technological tools are what a lot of developing societies are using as digital tools and its usage in government as digital government. History and record have shown that technological tools that facilitate the digital government such as – satellite, internet, computer networking and many others have long history of creation but their cost of acquisition and international politics has made it very difficult for them to be extended to the third world countries.

RECOMMENDATIONS

The following recommendations were proffered: the Nigerian government should as a matter of fact train all its workers about new and emerges technologies. This will go a long way to improve efficiency, reliability and performance in the public service. The digitalized technology in the Nigerian public sectors should be made available, functional and operational. This will go a long way to build trust, interest and recognition from both the uses of the tools and those benefited from it. The attitude of Nigerian workers toward public utilities and tool need can over hand. Government properties should be used with extreme caution and be protected. This will go a long way to check abuses and misuse by workers.

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