# Leveraging Information and Communications Technology in Revitalising Service Delivery in the Nigerian Public Sector

**By**

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**Abstract**

Many people have declared that Nigeria's public service delivery is in bad, slow, inadequate, and inefficient condition. The problems of subpar service delivery in the Nigerian public service have not significantly improved with the advent of information and communication technology (ICT) into the public sector. In light of this, the article investigates the current state of public sector service delivery in Nigeria by analysing extant literatures. Also, the paper examined the prospect of adopting the use of ICT towards revitalizing the Nigerian public sector while also pinpointing the difficulties associated with its use in Nigerian public service. The study suggested that Information and Communication Technologies (ICTs) have significant potential to improve public service delivery in Nigeria when properly utilised. Relying on modernization theory, the study used desk analysis to gather data which showed that using ICTs to conduct public services in Nigeria offers a novel and sustainable solution to long-standing issues with analog service delivery. The paper thus recommends that ICTs application in the public sector should reach all the people who need their services regardless of their location. This can be achieved by the provision of adequate ICTs infrastructure, improving online services and citizens access to these services and the civil service dedicating itself to improving the skillsand literacy level of its staff.

**Keywords: Information technology, public service delivery, e-governance, e-readiness, digital divide.**

## Introduction

Despite the importance of public services to individuals and countries, the World Bank's World Development Report released in 2004 discovered large disparities in the quality of public goods and services across developing countries and within countries (World Bank, 2004). In most African countries, including Nigeria, public service delivery has long been plagued by inefficiencies, corruption, lack of transparency, and bureaucratic bottlenecks. These challenges have resulted in delays, poor quality of services, and a general lack of trust among citizens towards public institutions. The public sector's traditional, paper-based systems and manual processes contribute significantly to these issues, making it difficult to provide timely and effective services to the populace. In Nigeria, citizen's perception of the government is that the institutionalized systems of service delivery of public services are poor, hence, it lacks required structures, and capability to deliver services that meet and exceed citizens expectations. More worrisome is the fact that many public bureaucracies were seen as bloated, incompetent and archaic, motivated essentially by an underlying rent-seeking tendency which is promoted by traditional administration bureaucracy (Ciborra, 2012).

Despite the global advancements in Information and Communication Technology (ICT), which offer innovative solutions for improving efficiency, transparency, and citizen engagement, the Nigerian public sector has been slow to adopt and integrate these technologies into its operations. Factors such as inadequate infrastructure, lack of skilled personnel, resistance to change, and limited funding have hindered the widespread implementation of ICT in public service delivery. (Adeyemo, 2011). While the adoption and benefits of e-governance have been remarkably visible inmany developed countries, there is still much scepticism about its applicability in most developing nations Nigeria inclusive. Overall, Nigeria has been lacking behind in e-government operationally compared to the developed countries of the world today (Bhatnagar, 2007). For instance, statistics published by the United Nations E-Governance Survey Report in 2014 ranked Nigeria 162 out of 193 countries in terms of its e-readiness (United Nations E-Governance Survey Report, 2014). The survey also reported that Nigeria had 0.2929 as its e-governance development index figure.

Feasibly, governments' establishments in Nigeria are yet to transcend beyond the billboard or partial service-delivery (such as an ordinary government website) to claim e- governance adoption. Furthermore, an unfortunate experience of e-governance initiatives in the Nigerian publicsector is that e-governance project was designed to promote the ideals of the government, its service provider, funding groups and donors, and not essentially configured based on the values, needs, and expectations of the citizens served by the government. Against this background, the paper seeks to examine the current state of public service delivery in Nigeria. Additionally, the paper seeks to identify barriers to ICT adoption in Public Service Delivery. lastly, the paper is set out to assess the potential impact of ICT on enhancing efficiency, transparency, and citizen satisfaction in the Nigerian Public Sector.

**Theoretical Underpinning**

Numerous theoretical strands have been adopted in the explanation of variables that connect ICT and the field of Public Administration. These theories attempt to explain the gains inherent in the growth and development of public institutions by means of reforms and digital applications. For instance, the theories of organizational change provide insight into how human factors, natural selction, and life circle can effect changes in the organization while the Technology Acceptance Model (TAM) postulates that the acceptance of technology is predicted by the users' behavioural intention, which is, in turn, determined by the perception of technology usefulness in performing the task and perceived ease of its use (Marikyan, amd Papagiannidis, 2023). In order to ensure specificity and direction, this paper is hinged on the theory of modernization. According to Goorah (2009), modernization theory studies the process of social evolution and the development of societies. Postulated by Rostow (1953), the theory is rooted in the idea that technological advancements drive social, political, and economic progress, provides a framework for understanding how societies evolve toward more complex and efficient systems. In the context of public administration, modernization through Information and Communication Technology (ICT) offers transformative potential, particularly in developing countries like Nigeria. This theory of modernization proposes that ICT integration can revitalize public service delivery in the Nigerian public sector by enhancing efficiency, transparency, and

accountability, while addressing historical inefficiencies and bureaucratic challenges.

To this extent, the theory, when applied to ICT in public service delivery rests on the following key assumptions as posited by Obi, Uzor, and Chukwurah (2020): Technological innovation is a primary driver of societal change. The adoption of ICT in public administration is expected to lead to structural transformations in how services are delivered and how citizens interact with the government. Secondly, Public institutions must adapt to new technologies by reforming organizational structures, processes, and skill sets. Thus, successful modernization is contingent on the public sector's ability to embrace ICT and reengineer its operations to leverage digital tools. Thirdly, modernization requires a huge human capital development that manifest in an educated and digitally literate workforce capable of managing and utilizing ICT. Without investing in human capital, the full potential of ICT in public administration cannot be realized. Lastly, modernization theory through ICT facilitates greater citizen participation and engagement in governance by providing digital platforms for feedback, transparency, and interaction with public services. This creates a more participatory and responsive government.

Indeed, the Nigerian public service has been characterized by manual processes, paper-based records, inefficient bureaucratic structures, limited transparency, and a high prevalence of corruption. This has resulted in the situation whereby public service provisions are slow, inaccessible to many (particularly in rural areas), and prone to mismanagement (Obiageli, Anthony, and Chi-Junior, 2020). The resultant effect is the lack of trust in public institutions by the citizens. As Magbadelo (2020) observed, the Nigerian public sector is overly reliant on the status quo, where the civil service is largely dependent on traditional methods and resistant to technological change. With the level of inefficiency, there is a need to revitalize the system by introducing basic ICT infrastructure such as computer systems, databases, and digital record-keeping in all government departments. This will amount to laying the groundwork by piloting ICT projects and creating awareness among public sector employees about the benefits of digital transformation so as to ensure a modernized public sector.

**The Current State of Service Delivery in the Nigerian Public Sector**

Over the years, the Nigerian civil service tended to have lost its fervor for service delivery as most government agencies and parastatals became synonymous with inefficiency, corruption, poor service delivery or no service at all. Yet, salaries are drawn by non-performing government officials and funds for capital projects that were never executed or at best poorly executed were wasted without any scruples (Magbadelo, 2020). As Murana, Salahu and Ibrahim (2016) observed, the present state of affairs in the civil service appears that the variables responsible for poor performance in the Nigerian civil service have not been dealt with and so the problem still lingers. Available literature revealed that numerous factors have been adjudged to be responsible for the poor state of affairs of the Nigerian Public Sector. They are:

***Bureaucratic Inefficiencies:*** The Nigerian Public Sector is often marked by cumbersome administrative processes which has led to undue delay (red tape) in the execution of its duties. These complex procedures bring about inefficiencies thereby making it difficult for citizens to access public services promptly **(**Solomon**,** 2015). Another factor that has contributed to bureaucratic inefficiencies, besides complex administrative procedures, is that many government operations rely heavily on manual, paper-based systems, which contribute to slow service delivery, increased chances of errors, and difficulties in tracking and monitoring service requests (Anazodo and Chukwemeka, 2012). This has impacted the Nigerian Public Sector negatively.

***Corruption and Lack of Transparency:*** Corruption remains a significant challenge within the public service. Citizens often face demands for unofficial payments or bribes to expedite services thereby undermining fairness and equality in service delivery (Oluwasanmi, 2007). According to (Ebegbulem, 2009), the Nigerian society has never been well governed because of impunity and corruption since it gained its political independence in 1960. The administrative machineries that have been put in place to checkmate corrupts public officials have become weapons of mass mobilization against political opponents thereby making them less effective. The resultant effect is poor performance and the lack of adherence to rules and regulations. Also, the preponderance of corruption in the Nigerian Public Sector has manifested in the lack of accountability in the system. There is a

lack of accountability mechanisms in place to monitor public service delivery. As Usman (2013, p. 133) noted, this absence of oversight contributes to the persistence of corrupt practices and mismanagement of public resources.

***Inadequate Infrastructure and Technology:*** Public Service delivery in the Nigerian Civil Service is hampered by obsolete infrastructure and a lack of modern technological tools. To this extent, many government departments lack the necessary ICT infrastructure to streamline and automate processes, resulting in inefficiency and delays (Atairet, 2022). As population continue to soar, the demand for public goods becomes increasingly high yet the government continually demonstrate inefficiency to meeting the demands. This is because of the dearth in the availability and usage of Information and Communications Technology in the rendition of public goods. The lack of adequate infrastructure is further accentuated by the significant level of digital divide in Nigeria, with many citizens lacking access to the internet and digital literacy skills (Obiageli, Anthony, and Chi-Junior, 2020). This gap limits the potential for digital government initiatives to reach and benefit all segments of the population.

***Low Citizens Engagement and Feedback Mechanisms:*** Public service delivery in the Nigerian ecology often lacks a citizen-centric approach for policy implementation, with limited mechanisms for feedback and engagement. This lack of citizen involvement in service design and evaluation results in services that may not meet the actual needs of the populace. Also, many citizens are not adequately informed about the services available to them or the processes for accessing these services. According to Awosika, (2014), this lack of awareness contributes to underutilization and frustration among citizens.

***Policy and Regulatory Constraints:*** The Nigerian Civil Service is reeled with humongous policy and regulatory issues that have hindered service delivery. Inconsistent and frequently changing policies create an unpredictable environment for public service delivery. This inconsistency makes it difficult to implement long-term strategies for improvement (Magbadelo, 2016). Policy and regulatory constraint in the Nigerian public sector have also brought about regulatory bottlenecks leading to a scenario whereby **e**xcessive regulations and requirements hinders the efficient delivery of services. For example, obtaining

permits or licenses often involves navigating through multiple layers of approval, contributing to delays and inefficiency.

The above discussion represents the state of affairs of the present day Nigerian public sector that has made effective and efficient service delivery nothing to write home about. It is worthy of note that any government that is bound to succeed must put in place a virile administrative machinery that would ensure efficiency and result orientation. However, the Nigerian public sector has been nothing short of a confused system that is still grappling to find its root in the post-colonial framework. That is why it still continuous to face significant challenges in delivering efficient, transparent, and equitable public services.

**Towards the Adoption of Information and Communications Technology in the Nigerian Public Service Delivery**

The adoption of Information and Communications Technology (ICT) in the Nigerian public sector has the potential to revolutionize public service delivery, making it more efficient, transparent, and accessible. However, moving towards widespread ICT adoption requires addressing several key challenges, implementing strategic planning, and fostering an environment conducive to digital transformation.

Without a doubt, information and communication technologies present Nigeria and all developing nations with enormous prospects in terms of delivering public goods and ensuring citizens' happiness. This explains the connection between the use of ICTs in government operations, the accomplishment of significant social development objectives, and the optimisation of those processes. It also provides a strong case for the country's civil service to keep using ICTs (Obi, Uzor, and Chukwurah, 2020). This is why Gupta and Jana (2003), argued that the application of ICTs in government 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 ICTs application and efficient service delivery. The European Commission (cited in (Nweke, 2007) noted in a 2003 study that the use of ICTs by the public sector helps to uphold and improve good governance in the knowledge society, foster an open and transparent public sector, and establish governments that are transparent, understandable, answerable to the people, and

open to democratic scrutiny and involvement. Additionally, it guarantees that the public sector serves all, encourages a productive public sector that maximises tax payers' money, reduces errors, saves time waiting in queue, increases the number of connections available for professional in-person assistance, and, ultimately, makes civil servants' jobs more fulfilling.

In fact, there is a wealth of existing research that highlights the enormous potential of ICTs as a productive and successful means of providing public services. Initiatives aiming at combating corruption and boosting public engagement in government institutions have undoubtedly benefited greatly from the innovation and revolution of ICTs. More specifically, ICTs have created a new e-governance avenue or arena that has great promise for enhancing citizen participation in public 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 application of ICTs in the civil 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 administration (Pacific Council, 2002); increasing transparency in administration, reducing corruption and increasing political participation (Seifert and Bonham, 2003), and; making governments more competitive (OECD 2003).

The adoption of and transitioning to Information and Communication Technology is reeled with numerous benefits. In line with the study carried out by Oshoma and Aimuan (2017), ICTs ensure that the public sector is at the service for all, the study reveals that ICTs impact positively on human resource performance, improved documentation processing and efficient filling system. Beyond that, the utilization of ICT in the Nigerian Public sector enhancing efficiency, improves transparency and accountability, facilitates access and inclusivity, reduced cost of administration and enables fast and accurate service delivery (Obi, Uzor, and Chukwurah, 2020; Akunyili, 2010). ICT can significantly streamline government processes, reducing the time and resources required to deliver public services. Automated systems can handle routine tasks, such as processing applications and issuing permits, faster and more accurately than manual methods. As Seifert, W and Bonham (2003) argue, Digital platforms can provide greater transparency by

allowing citizens to track the status of their service requests and access information about government operations. This transparency helps reduce corruption and fosters greater accountability within public institutions.

The application of ICT has been projected to help bridge the urban-rural divide by making public services more accessible to remote and underserved areas. This view was echoed by Ndou (2004) when he asserted that e-government platforms can provide citizens with online access to services, reducing the need to travel to government offices. The application of ICTs in the Nigerian public sector allows for a significant reduction in information handlingcost. This process enables faster sharing of information thereby reducing the frequency with which data is collected when it is handled manually (Olatokun, and Adebayo, 2012). It is noteworthy to state that the traditional style of service delivery in the Nigerian public sector is time-consuming because of the bureaucratic nature of the Nigerian civil service. ICTs application, therefore, helps to reduce waiting time and red-tapism, thereby bringing about fast and accurate service delivery.

**Challenges of the adoption of ICT in the Nigerian Public Sector:**

Despite the avalanche of prospects and benefits that are inherent in the adoption of ICT in the rendition of public service by the Nigerian Civil Service, hindrances and challenges abound. The following are some of the challenges confronting the public sector and indeed many developing countries in their efforts to utilize ICTs to deliver efficient and effective service to the citizens. We will now examine in details the foregoing challenges of ICTs implementation in the public sector. Again, we decided to summarize them under five headings.

**Leadership Challenges and Political enthusiasm**

Problems of leadership and political willingness are indeed a great variable constraining ICTs initiative and application in the Nigerian civil service vis-à-vis public service delivery. Like other developing nations, politicalinfluence, lack of transparency and accountability, the problem of corruption, etc, are threats facing the management of e-government in the public sector of Nigeria. This condition of affairs is supported by Ciborra (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 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.

**Problems 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, the 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 andas such lack access to ICTs. This means that these categories of Nigerians might not obtain important government 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 economic exclusionsuggest that the Nigerian government should be concerned with the level of connectivity and ICTs provision andwith 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 (Hanna, 1991).

**Poor ICTs Skill, Literacy and Usage**

Besides the problems of leadership, digital divide, and the dearth of ICTs infrastructure in the country, e- government initiatives in the civil service lack personnel with the requisite ICTs skills needed for public service delivery. Regardless of the existence or sophistication of ICTs, human beings remain the most critical success factor. They are the users and creators of data. They are the managers of 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 ICTs infrastructure.

Apart from the lack of technical ICTs skills in the public sector, which affects Nigeria's e-readiness, the civil service does not have the requisite in-house managerial ICTs skills. Besides, it lacks the training programmes to create a sustainable pool of staff with basic ICTs literacy, technical and managerial skills. The main consequenceof this problem is the tendency to use external consultants and contractors, which makes ICTs application very expensive in the civil service. One can see from the foregoing that human capital development is a vital prerequisite for e-government application in the public sector. This has become even more necessary considering the low qualification of ICTs personnel and professionals in Nigeria. The same study by Nwachukwu and Pepple(2015), shows the qualifications of ICTs personnel in Nigerian software firms as secondary school qualificationsonly (15%); first degree or diploma or equivalent (36%) first degree plus masters degree (23%); first degree plusmasters plus professional qualification (23%); and PhD (3%). The foregoing figures show signs of low and inadequate ICTs personnel and professionals in the country.

**The problem of Growth dynamics**

Challenges of adapting to change is another key drawback to ICTs application in the Public sector. Change is one phenomenon that is permanent or constant in nature but always dynamic that is difficult to be followed due to resistance. Resistance to change associated with ICTs application in the civil service comes about due to factors such as culture, labour, ideological issues and inertia of the options and habits (Nweke, 2007b:172). Among the foregoing factors, culture is the most challenging. The most evident cause of resistanceto ICTs application in the service is obtainable among civil 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 civil servantsin 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.

**Lack of Public Confidence in Government**

The last challenge of ICTs application in the public sector that we discussed here is the problem of lack of publicconfidence and trust in online interaction with the government. Many people in Nigeria do not have confidence and trust in e-government initiatives. 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 ICTs. The activities of cybercriminals and hackers have continued to be on the increase in Nigeria. The presence of JAMB, NECO, WAEC and similarly establishments online in Nigeria has led to the forging of documents since users now take results and documentsonline. The foregoing scenario compromises personal data, authentication of data and identity management. The Green Paper on E-Commerce (2000:47) advocates that government regulation could play an important role through specific legislation concerning 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 ICTs application in the civil service. Some civil servants in Nigeria even resist e-government initiatives in the service based on this factor. According to Nweke (2007a:191; 2007b:173), if ICTs application in public service delivery in Nigeria must receive a 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 ICTs in public servicedelivery and accordingly reduce the resistance that comes with ICTs application in the civil service.

**Conclusion and Recommendations**

It is all obvious that ICTs present enormous opportunities to enhance the delivery of public service in the Publicsector as argued by the ICTs optimists. Today, ICTs usage in the Public sector remains a key factor in enhancingpublic service delivery in the country. Developments in ICTs have dramatically changed the way information iscollected, stored, processed, disseminated and used, thus making it the most powerful tool for modernization anddevelopment. ICTs application in the

public sector has emerged as one of the key initiatives that enhance equity, transparency, accountability, responsiveness, responsibility, effectiveness and efficiency in the manifold transactions that link service suppliers and service recipients. Indeed, ICTs application in the public sector is nolonger seen as an option today but as a necessity for all countries aiming at improving public service delivery. The investment climate in any country today is even partly dependent on the e-government readiness index of the country. No doubt, the ICTs revolution has opened up vast opportunities to meet the intractable challenges and difficulties that have confronted the Nigerian MDAs since the 1960s. One of the thorniest challenges of the Nigerian publicservice has been on how to deliver efficient and effective public service to her service recipients. Finding ways to deal with this intractable challenge has been the priority concern of successive Nigerian governments who have over the years instituted one administrative reform or the other. Sadly, however, most of these administrative reforms have been abysmal failures vis-à-vis public service delivery. This paper, therefore, argued and concludes that ICTs present enormous opportunities to enhance the delivery of public service in the public sector. The usefulness of ICTs lies in its complementary relationship with other options that are available for improving public service delivery.

This suggests that a stand-alone role for ICTs application in fixing the intractable problem of service delivery inthe Nigerian civil service cannot work. However, the main challenge of ICTs implementation in the Public sector is the low nature of its usage which arises due to some of these challenges: lack of ICT infrastructure; challengesof leadership and lack of political will; low ICT skills, literacy and usage; the problem of adapting to change; Nigeria's epileptic power supply; the problem of digital divide; lack of public confidence and trust in online interaction with the government; high costs of ICTs and affordability; Nigeria’s low e-readiness; lack of ICT units and functions; inadequate ICTs funding by the government; and poor institutional governance structure to drive ICTs in the civil service. All these challenges have indeed combined to hamper the enormous opportunitiesof ICTs as a means of efficient, effective and responsive public service delivery in the Public sector. There is, therefore, the urgent need for the government and those concerned to concisely tackle these challenges to enhancethe potentials of ICTs to deliver

efficiently and quality services to the service recipients of the Nigerian Public sector.

Another challenge of ICTs implementation in the Public sector is whether the intended objective of reaching thecitizens is achieved. ICTs application in the public sector should reach all the people who need their services regardless of their location. This can be achieved by the provision of adequate ICTs infrastructure, improving online services and citizens access to these services and the civil service dedicating itself to improving the skills and literacy level of its staff. Overall, Nigerians, in general, will benefit more if the public service critically examines its present ICTs state and then identifies those areas that it needs to improve on. ICTs infrastructure cannot work without a regular source of power supply. More efforts should, therefore, be devoted to improvingthe country's epileptic power supply. The nation still needs to commit more resources into the development of its human capital, address the internal digital divide between its literate and illiterate citizens, while the websitesset up by government ministries, departments and agencies should be integrated and reviewed to make them e- service complaint within the context of a national portal.

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