



Technology-Driven Public Administration Reforms in Nigeria: A Digital Era Governance Perspective

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Abstract

This study examines Technology and Public Administration Reforms in Nigeria: A Digital Era Governance Perspective. The study adopted a qualitative descriptive research design and relied on secondary sources such as journal articles, government reports, institutional publications, and policy documents. The study is anchored on the Digital Era Governance theory. Findings show that Nigeria has made significant progress in digital transformation through reforms such as the Integrated Payroll and Personnel Information System (IPPIS), Treasury Single Account (TSA), Bank Verification Number (BVN), National Identification Number (NIN), and various e-governance platforms in taxation, immigration, education, and health sectors. These reforms have improved efficiency, transparency, accountability, and revenue management while reducing corruption and administrative bottlenecks. However, the study also identifies persistent challenges, including inadequate ICT infrastructure, cybersecurity threats, digital inequality, limited digital literacy, and institutional resistance to

change. The study concludes that despite these constraints, technology-driven reforms strongly align with NPM principles and remain essential for improving public sector performance in Nigeria. It recommends increased ICT investment, capacity building, strengthened cybersecurity systems, expanded digital inclusion, and enhanced public awareness to support effective governance outcomes.

Keywords: Technology, Public Administration Reforms, Digital Era Governance, New Public Management, and E-governance

1. Introduction

In recent decades, technology has become a transformative force in reshaping governance and public administration globally, and Nigeria is no exception. The integration of digital tools into public sector management has been driven by the need to improve efficiency, transparency, accountability, and service delivery. In Nigeria, public administration reforms have increasingly embraced digital technologies such as e-governance platforms, biometric identification systems, Integrated Payroll and Personnel Information System (IPPIS), Treasury Single Account (TSA), and digital tax administration systems. These innovations reflect a broader global shift toward Digital Era Governance (DEG), which emphasizes the restructuring of public administration through digital

integration, data-driven decision-making, and citizen-centric service delivery (Dunleavy et al., 2006).

Digital Era Governance theory argues that modern states are moving away from fragmented bureaucratic systems toward integrated, digital-first governance models that prioritize automation, needs-based holism, and digital redesign of administrative processes (Dunleavy et al., 2006). In the Nigerian context, this transformation has been motivated by long-standing challenges such as bureaucratic inefficiency, corruption, weak institutional coordination, and poor public service delivery. As a result, successive governments have introduced reform initiatives to leverage information and communication technology (ICT) to enhance governance outcomes. For instance, the adoption of TSA has significantly improved government revenue consolidation and reduced leakages in public finance management, while IPPIS has been used to eliminate ghost workers and improve payroll transparency (Ojo, 2014).

Furthermore, digital reforms in Nigeria's public administration have been strengthened by the expansion of e-government platforms, enabling citizens to access services online and thereby reducing physical contact and administrative bottlenecks. Agencies such as the National

Information Technology Development Agency (NITDA) have played a central role in driving ICT policy implementation and digital transformation strategies across ministries, departments, and agencies. These developments align with global governance trends that emphasize open government, digital inclusion, and participatory administration (United Nations, 2022).

However, despite these advancements, the implementation of technology-driven reforms in Nigeria faces significant structural and institutional constraints. These include inadequate ICT infrastructure, limited digital literacy among public servants and citizens, cybersecurity threats, weak policy enforcement, and unequal access to digital services, particularly in rural areas. Such challenges highlight the digital divide that continues to undermine the full realization of Digital Era Governance principles in developing contexts (World Bank, 2020). Moreover, resistance to change within bureaucratic institutions often slows the adoption of innovative systems, thereby limiting their effectiveness. Notwithstanding these challenges, the trajectory of public administration reforms in Nigeria demonstrates a clear shift toward digital governance as a tool for enhancing state capacity and improving public accountability. The increasing reliance on

data-driven systems, automation of administrative processes, and integration of ICT into governance structures reflects an ongoing transformation of the Nigerian public sector. In this regard, technology is not merely an administrative tool but a fundamental driver of institutional reform and governance modernization.

Therefore, the problem of this study stems from the fact that despite the numerous digital reforms introduced by the Nigerian government, the expected level of efficiency, accountability, transparency, and effective public service delivery has not been fully achieved. While initiatives such as the Treasury Single Account (TSA), Integrated Payroll and Personnel Information System (IPPIS), biometric verification systems, and e-governance platforms were designed to modernize public administration and reduce corruption, many government institutions still experience bureaucratic inefficiency, poor coordination, corruption, and delays in service delivery. In addition, challenges such as inadequate ICT infrastructure, weak institutional capacity, low digital literacy, cybersecurity threats, resistance to technological change, and unequal access to digital services continue to hinder the effective implementation of technology-driven reforms in Nigeria. These persistent problems raise concerns about the extent to which Digital Era Governance principles

have been effectively institutionalized within Nigeria's public administration system. Therefore, there is a need to critically examine technology-driven public administration reforms in Nigeria: a digital era of governance.

1.1 Conceptual Clarifications

Technology

Technology is commonly defined by scholars as the application of scientific knowledge, tools, skills, and systems to solve practical problems and improve human life, but different scholars emphasize different dimensions of this concept depending on their theoretical and disciplinary orientation. The World Bank (2022) defines technology as a key driver of development that enables efficiency, innovation, and improved service delivery in both public and private sectors. This definition emphasizes the economic and developmental value of technology, focusing on how it improves productivity and reduces inefficiency. However, this perspective can be critiqued for being overly institutional and development-centered, as it tends to prioritize outcomes such as growth and efficiency while paying less attention to how unequal access to technology can reproduce social and economic inequalities.

The United Nations (2024) defines technology as a set of digital and non-

digital systems that support access to information, public services, and sustainable development goals. This definition highlights inclusiveness and global development priorities, particularly in improving access to governance and social services. The limitation of this definition is that it assumes a level of digital infrastructure and institutional capacity that many developing countries still struggle to achieve, making implementation uneven across regions. Salih (2023) defines technology specifically within governance as ICT-enabled systems that enhance communication, transparency, and administrative efficiency in public institutions. This definition is useful because it connects technology directly to public administration reform. However, it can be critiqued for narrowing technology mainly to governance applications, thereby underemphasizing its broader industrial, social, and cultural roles.

Ogundipe et al. (2022) define technology as a socio-technical system that includes both human and non-human components, such as knowledge, institutions, and digital tools that interact to produce development outcomes. This definition is more balanced because it recognizes that technology does not operate in isolation but depends on human capacity and institutional environments. Its limitation, however, is that it is more

theoretical and less practical for policy application due to its broad conceptual scope.

The Digital Transformation Report (2025) defines technology as the integration of digital systems such as artificial intelligence, cloud computing, and data analytics into all areas of human activity, leading to the structural transformation of institutions and societies. This definition captures the modern digital evolution of technology, but it tends to overemphasize advanced technologies while underrepresenting basic and traditional technologies that are still essential in many developing contexts. Within the context of this study, technology can be understood as the application and integration of knowledge, tools, and systems to solve problems and improve human life, but each scholarly definition reflects different priorities such as economic development, governance efficiency, inclusiveness, socio-technical interaction, or digital transformation. A critical interrogation shows that while each perspective is valuable, no single definition fully captures the complexity and evolving nature of technology in contemporary society.

Public administration reforms

Public administration reforms can be understood as deliberate and continuous efforts to improve how government

institutions are organized, managed, and operated in order to enhance service delivery, accountability, efficiency, and responsiveness. Different scholars and international institutions define and emphasize this concept in varying ways, each highlighting particular dimensions of governance improvement. The World Bank (2022) also defined public administration reforms as institutional changes aimed at strengthening government capacity, improving service delivery, and ensuring efficient use of public resources. This definition emphasizes performance, efficiency, and results-oriented governance. However, it can be critically interrogated for its strong managerial and economic bias, as it tends to prioritize efficiency and cost-effectiveness while paying less attention to political, cultural, and social realities that influence how reforms actually function in practice, especially in developing countries.

The United Nations (2024) sees public administration reforms as governance transformation processes designed to build transparent, inclusive, and accountable institutions that support sustainable development and citizen well-being. This definition places emphasis on inclusiveness, participation, and equity in governance outcomes. Its limitation lies in its normative orientation, as it assumes that governments have both the political will

and institutional capacity to implement such ideal standards, which is often not the case in many developing states. The Organisation for Economic Co-operation and Development (OECD, 2021) conceptualize public administration reforms as the adoption of modern management practices such as performance measurement, decentralization, and results-based management to improve the effectiveness of public sector institutions. This view is useful for understanding administrative modernization, but it can be critiqued for promoting a “private sector style” of governance that may not fully align with public sector values such as equity, public accountability, and universal service provision.

Dunleavy et al. (2006), from the Digital Era Governance perspective, define public administration reforms as the restructuring of government through digital integration, automation, and system redesign using information technology. This definition highlights the transformative role of ICT in reshaping public administration. However, it can be criticized for being technologically deterministic, as it tends to overemphasize digital solutions while underestimating institutional resistance, infrastructure gaps, and human capacity limitations that affect implementation. Salih (2023) defines public administration reforms in terms of

ICT-driven improvements in administrative processes, communication systems, and service delivery mechanisms within government institutions. This perspective is useful for understanding practical applications of technology in governance, but it is relatively narrow because it focuses mainly on digital tools without fully engaging broader structural and political reforms needed in public administration systems.

Ogundipe et al. (2022) define public administration reforms as socio-institutional transformations that involve changes in structures, human capacity, organizational culture, and technological systems. This definition is more holistic because it recognizes that reforms are not only technical or administrative but also deeply embedded in social and institutional contexts. However, its broadness can make it less precise for policy application and measurement. Thus, within the context of this study, public administration reforms can be defined as intentional changes in government systems aimed at improving governance performance and service delivery. A critical examination of scholarly perspectives shows that while some emphasize efficiency and managerial outcomes, others focus on inclusiveness, digital transformation, or institutional change.

Digital Era Governance (DEG)

Digital Era Governance (DEG) refers to a framework of public administration that explains how digital technologies are reshaping the structure, processes, and functioning of government institutions. It emphasizes the transformation of traditional bureaucratic systems into more integrated, automated, and citizen-centred forms of governance through the use of information and communication technologies (ICTs), data systems, and digital platforms (Dunleavy et al., 2006; OECD, 2021). At its core, Digital Era Governance is defined by the idea that modern governments are increasingly dependent on digital systems to deliver services, coordinate activities, and make decisions. Dunleavy et al. (2006) describe DEG as a shift from fragmented and paper-based bureaucratic administration to digitally integrated systems that prioritize reintegration of government services, needs-based holism, and digitalization of administrative processes. This definition highlights three key principles: reintegration of government functions, modernization through digital tools, and the restructuring of administrative systems to fit digital realities.

The OECD (2021) expands this understanding by defining digital governance as the use of digital



technologies to improve public sector performance, enhance policy outcomes, and increase responsiveness to citizens. This perspective emphasizes efficiency, innovation, and performance improvement in government operations. However, it can be critiqued for focusing heavily on administrative efficiency while underemphasizing structural inequalities such as unequal access to digital infrastructure and varying levels of digital literacy among citizens.

The United Nations (2024) defines Digital Era Governance in terms of digital government transformation aimed at improving accessibility, transparency, and inclusiveness in public service delivery. This definition highlights citizen-centered governance, where digital tools are used to make government services more accessible and participatory. However, its limitation is that it assumes a level of technological readiness and institutional capacity that may not exist equally across all countries, especially in developing economies. Salih (2023) defines Digital Era Governance as the integration of ICT systems into public administration processes to enhance communication, transparency, and efficiency in government institutions. This definition focuses on the operational role of technology in improving administrative performance. While useful for practical understanding, it is somewhat narrow

because it does not fully capture the broader institutional restructuring and policy shifts that DEG involves.

Ogundipe et al. (2022) provide a broader interpretation by viewing Digital Era Governance as a socio-technical transformation in which digital technologies interact with institutions, human capacity, and organizational culture to reshape governance outcomes. This perspective is valuable because it recognizes that digital transformation is not purely technical but deeply influenced by social and institutional factors. However, its broad conceptual scope may limit its direct application in policy design and implementation. In essence, Digital Era Governance can be defined as a modern approach to public administration that uses digital technologies to restructure government operations, improve service delivery, and enhance citizen engagement. It represents a shift from traditional bureaucratic governance to integrated, technology-driven systems that prioritize efficiency, coordination, and responsiveness in the digital age.

1.2 Theoretical Framework

The study adopts the Digital Era Governance Theory (DEG), which was propounded by Patrick Dunleavy, alongside Helen Margetts, Simon Bastow, and Jane Tinkler in 2006. The theory

emerged as a response to the limitations of the New Public Management (NPM) approach, which emphasized decentralization, privatization, and market-oriented reforms in public administration.

The basic assumptions of Digital Governance Theory are centered on the idea that technology has become a fundamental instrument for modern governance and public sector transformation. The theory assumes that governments can achieve more effective administration through the integration of digital systems across ministries, departments, and agencies. It also assumes that digital technologies reduce bureaucratic bottlenecks by automating administrative processes and improving communication within government institutions. Another assumption is that governance should be citizen-centered, meaning that digital platforms should make public services more accessible, transparent, and responsive to the needs of citizens. Furthermore, the theory emphasizes data-driven decision-making, where governments rely on digital information systems for policy formulation, monitoring, and service delivery. Digital Governance Theory also assumes that technological innovation promotes accountability by reducing human interference, corruption, and financial leakages in public administration.

Scholars such as Morozov (2013) and van Dijk (2005) have criticized Digital Governance Theory. Morozov (2013) argued that the theory places excessive reliance on technology as a solution to governance problems while ignoring deeper political, social, and institutional issues such as corruption, weak institutions, and poor governance culture. He described this as “technological solutionism,” where governments assume that digital tools alone can solve complex administrative challenges. Similarly, van Dijk (2005) criticized the theory for assuming equal access to digital technologies among citizens. According to him, the existence of a digital divide, especially in developing countries, limits effective participation in digital governance because many people lack internet access, digital literacy, and adequate technological infrastructure.

The relevance of Digital Governance Theory to this study is that it helps to explain how the use of technology can improve the way government institutions operate and deliver services to citizens. The theory shows that digital tools such as online platforms, biometric systems, electronic payment systems, and computerized record management can make public administration faster, more transparent, and more accountable. In Nigeria, reforms such as the Treasury Single Account (TSA), Integrated Payroll

and Personnel Information System (IPPIS), and e-government platforms were introduced to reduce corruption, eliminate delays, improve coordination, and enhance service delivery in the public sector. However, the theory also helps this study to understand why some of these reforms have not fully achieved their objectives due to challenges such as poor ICT infrastructure, low digital literacy, resistance to change, and weak institutional capacity. Therefore, the theory is relevant because it provides a framework for examining how technology-driven reforms have influenced public administration in Nigeria and the extent to which they have improved governance and administrative efficiency.

Technology-Driven Public Administration Reforms in Nigeria: A Digital Era Governance Perspective

Technology has become a central driver of public administration reforms in Nigeria, especially when examined through the Digital Era Governance (DEG) perspective. DEG explains the shift from traditional, fragmented, and paper-based bureaucratic systems to integrated, automated, and citizen-centered governance structures powered by information and communication technologies (ICTs). In Nigeria, this transformation is driven by the need to improve efficiency, reduce corruption, and

enhance service delivery in a public sector historically characterized by bureaucracy, weak coordination, and administrative delays (Dunleavy et al., 2006; World Bank, 2022). Through digital transformation, government institutions such as the Office of the Accountant General of the Federation (OAGF), Federal Inland Revenue Service (FIRS), Nigeria Immigration Service (NIS), and National Identity Management Commission (NIMC) are increasingly redesigning how services are delivered, how information is processed, and how public resources are managed through digital platforms.

One of the earliest and most significant examples of this transformation is the Integrated Payroll and Personnel Information System (IPPIS), managed under the Office of the Accountant General of the Federation. IPPIS was introduced to centralize payroll administration across federal ministries, departments, and agencies. Before its implementation, payroll processes were largely manual and decentralized, particularly in institutions such as federal universities and hospitals, leading to irregularities such as ghost workers, salary duplication, and delayed payments. For example, audits carried out during IPPIS enrollment uncovered ghost worker cases in institutions such as the Nigerian Railway Corporation and several federal universities where individuals were



receiving salaries without active employment status. With IPPIS, employee records are now stored in a centralized database, and biometric verification is carried out before salary payments are processed. This has significantly reduced payroll fraud and improved accountability in public sector wage administration (World Bank, 2022; Salih, 2023).

Closely related to payroll reform is the Treasury Single Account (TSA), implemented under the coordination of the Central Bank of Nigeria (CBN) and the Office of the Accountant General of the Federation. TSA was introduced to consolidate all federal government revenues into a unified electronic account system. Before TSA, agencies such as the Nigerian Customs Service (NCS), Federal Inland Revenue Service (FIRS), Nigerian Ports Authority (NPA), and Federal Ministry of Education operated multiple accounts across commercial banks, making revenue tracking difficult and encouraging leakages. With TSA, revenues from passport fees collected by the Nigeria Immigration Service, customs duties collected at Apapa Port, and tuition-related charges from federal universities such as the University of Lagos (UNILAG) and Ahmadu Bello University (ABU) are now remitted directly into a centralized federal account. This has strengthened fiscal transparency, improved cash management,

and reduced corruption in revenue administration (OECD, 2021; United Nations, 2024).

Digital identity reforms also play a crucial role in Nigeria's public administration transformation through institutions such as the National Identity Management Commission (NIMC) and the Central Bank of Nigeria (CBN). The Bank Verification Number (BVN), implemented by the CBN in collaboration with commercial banks such as First Bank of Nigeria, GTBank, and Zenith Bank, links all bank accounts to a unique biometric identity. This has helped eliminate identity fraud and multiple account manipulation in the banking sector. Similarly, the National Identification Number (NIN), issued by NIMC, is now required for services such as SIM registration with MTN Nigeria, Airtel Nigeria, and Globacom, as well as for obtaining passports from the Nigeria Immigration Service. For example, without NIN verification, citizens cannot register SIM cards or access several government services, ensuring stronger identity control and improved national security. These reforms reflect DEG's emphasis on integrated digital identity systems that connect citizens to government services through a unified database (World Bank, 2022).

E-governance platforms have further expanded the reach of digital



transformation in public administration. The Federal Inland Revenue Service (FIRS) has developed the TaxPro-Max platform, which allows individuals and corporate organizations such as Dangote Group, MTN Nigeria, and banks to file tax returns and make payments online. Similarly, the Nigerian Immigration Service operates an online passport application system that enables citizens to complete applications, upload documents, and schedule biometric capture appointments without visiting offices physically. The Joint Admissions and Matriculation Board (JAMB) also uses its e-facility portal for registration, result checking, and admission processing for candidates seeking admission into universities such as the University of Benin (UNIBEN), University of Ibadan (UI), and Lagos State University (LASU). These systems reduce bureaucratic delays and increase transparency in service delivery, aligning with the DEG principle of needs-based holism, where services are designed around citizens rather than institutions (Salih, 2023; United Nations, 2024).

Also, in the education sector, digital transformation has significantly improved administrative efficiency across federal, state, and private universities in Nigeria by modernizing how academic activities are managed. Institutions such as Covenant University, University of Lagos

(UNILAG), Obafemi Awolowo University (OAU), University of Benin (UNIBEN), and Ahmadu Bello University (ABU) have fully adopted student information management systems that allow students to carry out most academic processes online. Through these portals, students can register for courses at the beginning of each semester without physically visiting departmental offices, which traditionally involved long queues and delays. For example, UNILAG's student portal enables course registration, fee payment, hostel applications, and result checking all in one platform, reducing the stress associated with manual processing. Similarly, OAU uses its electronic portal to manage examination results and transcript requests, allowing graduates to apply for academic transcripts online instead of waiting weeks or months for manual processing. This digital shift has eliminated many administrative bottlenecks that previously characterized university administration, such as misplaced files, delayed result uploads, and overcrowding in administrative offices. Furthermore, students can now access these services using mobile phones and laptops from any location, which has greatly improved convenience, accessibility, and time management. It has also reduced corruption opportunities in academic administration, such as unofficial payments for faster

processing of results or registrations. Overall, digital platforms in universities have transformed higher education governance into a more transparent, efficient, and student-centered system that aligns with global best practices in educational administration.

Furthermore, in the health sector, technology has also significantly improved administrative coordination, patient care delivery, and health insurance management across Nigeria's healthcare system. Institutions such as the National Health Insurance Authority (NHIA), University College Hospital (UCH) Ibadan, Lagos University Teaching Hospital (LUTH), Federal Medical Centre (FMC) Abuja, and others have introduced electronic health systems to streamline medical administration. These systems include electronic medical records (EMR), which allow hospitals to store and retrieve patient information digitally rather than relying on bulky paper files. For example, at LUTH and UCH, patient registration, medical history, diagnosis, laboratory results, and treatment records are now stored electronically, enabling doctors to quickly access patient information and make faster clinical decisions. This has significantly reduced the delays previously caused by searching through physical files or losing patient records. In addition, NHIA uses digital platforms to manage health

insurance claims processing, allowing hospitals to submit and verify claims electronically, which reduces paperwork and speeds up reimbursement processes. Digital health systems also improve coordination between healthcare providers and insurance agencies, ensuring that patients receive timely care without administrative delays. Furthermore, in emergencies, hospitals can quickly retrieve patient data, even if the patient is unconscious or unable to provide medical history, thereby improving treatment outcomes. Overall, the adoption of digital systems in Nigeria's health sector has strengthened efficiency, improved accuracy in patient management, reduced administrative errors, and enhanced the overall quality of healthcare delivery across both public and teaching hospitals.

Challenges of Technology-Driven Reforms in Nigeria

Technology-driven public administration reforms in Nigeria have recorded important progress; however, they continue to face several structural, institutional, and social challenges that limit their effectiveness and long-term sustainability (World Bank, 2022; Dunleavy et al., 2006). One of the most significant challenges is poor ICT infrastructure, which directly affects the functionality of digital governance systems



across ministries, departments, and agencies. Many government offices still experience unstable internet connectivity, outdated computer systems, and irregular electricity supply, all of which are critical for sustaining digital administrative operations (OECD, 2021). For instance, in some federal ministries located in Abuja and in state offices across less developed regions such as parts of the North-East and the Niger Delta, frequent power outages often disrupt access to essential platforms like the Integrated Payroll and Personnel Information System (IPPIS), leading to delays in salary processing and system downtime. Similarly, weak broadband penetration in rural local government secretariats significantly limits the use of online administrative systems for revenue collection and personnel records. As Dunleavy, Margetts, Bastow, and Tinkler (2006) argue, digital government systems cannot function effectively without strong infrastructural foundations that support integration and automation.

Another major challenge is the digital divide and inequality in access to technology, which results in uneven participation in digital governance systems (United Nations, 2024; Heeks, 2018). Many citizens in rural and semi-urban areas lack access to smartphones, computers, and affordable internet services, making it difficult for them to benefit from

government digital platforms. This creates a significant gap between urban and rural populations in accessing public services. For example, residents in urban centers such as Lagos, Abuja, and Port Harcourt can easily access services like online passport applications through the Nigeria Immigration Service (NIS) portal or file taxes using the Federal Inland Revenue Service (FIRS) TaxPro-Max system, whereas individuals in rural communities in states such as Taraba, Zamfara, and parts of Benue often have to travel long distances to urban centers to access the same services. Heeks (2018) emphasizes that digital inequality in developing countries often leads to “information exclusion,” where technology benefits only a privileged segment of society.

Cybersecurity threats also represent a growing and serious challenge to technology-driven public administration reforms in Nigeria (OECD, 2021; Alhassan, 2020). As government institutions increasingly rely on digital systems for data storage, identity management, and service delivery, they become more exposed to cyberattacks, data breaches, and identity theft. Critical systems such as the Bank Verification Number (BVN) managed by the Central Bank of Nigeria (CBN), the National Identification Number (NIN) database under the National Identity Management



Commission (NIMC), and tax records managed by the Federal Inland Revenue Service (FIRS) contain highly sensitive financial and personal data that can be targeted by cybercriminals if not properly secured. Alhassan (2020) notes that weak cybersecurity architecture in many African states increases vulnerability to digital fraud and undermines trust in e-governance systems.

Resistance to change within public institutions is another critical barrier affecting the successful implementation of digital reforms (World Bank, 2022; Ojo, 2014). Many public servants remain accustomed to traditional paper-based administrative procedures and often demonstrate reluctance in adopting new digital systems due to fear of job displacement, lack of technical skills, or perceived complexity of the systems. For example, during the early implementation of IPPIS, some federal universities, such as the University of Abuja, and other government agencies initially resisted full adoption due to concerns over loss of autonomy in payroll administration and fears that the system would expose irregularities in staff records. Ojo (2014) argues that bureaucratic inertia is one of the strongest obstacles to ICT adoption in African public sectors, particularly where reforms threaten existing administrative privileges.

Limited digital literacy among public servants and citizens further constrains the effectiveness of technology-driven reforms in Nigeria (United Nations, 2024; Adeyemi, 2021). Many government employees lack adequate training to effectively operate complex digital platforms, leading to errors, inefficiencies, and underutilization of available systems. For instance, in some local government councils, staff struggle with the proper use of online revenue collection systems and electronic document management platforms, resulting in continued reliance on manual processes. Similarly, many citizens experience difficulties navigating digital services such as the JAMB e-facility portal, FIRS TaxPro-Max system, and NIN enrollment platforms, often relying on cybercafés or third-party agents to complete applications. Adeyemi (2021) emphasizes that without sustained digital capacity building, ICT reforms in public administration are likely to remain underutilized and unevenly implemented.

Prospects of Digital Governance in Nigeria

The future of public administration reforms in Nigeria is strongly linked to the continued expansion of digital governance systems. As government institutions increasingly adopt information and communication technologies (ICTs), the prospects for more efficient, transparent,

and citizen-centered governance continue to grow. From a Digital Era Governance (DEG) perspective, these prospects are shaped by the ongoing integration of digital tools into administrative processes and the gradual restructuring of public service delivery systems (Dunleavy et al., 2006; United Nations, 2024).

One major prospect is the expansion of e-government services across all levels of government. Nigeria is gradually moving toward a system where citizens can access most public services online without needing physical interaction with government offices. For example, agencies such as the Federal Inland Revenue Service (FIRS) already allow taxpayers to register, file returns, and make payments online, while the Nigeria Immigration Service provides digital platforms for passport applications and renewals. Similarly, some state governments have introduced online land registration systems and digital revenue collection platforms. The expansion of these services is expected to reduce bureaucratic delays, improve efficiency, and enhance transparency in public administration (World Bank, 2022; OECD, 2021).

Another important prospect is the integration of artificial intelligence (AI) into public administration. AI has the potential to transform how government decisions are made by improving data

analysis, automating routine tasks, and enhancing service delivery. For instance, AI-powered chatbots can be used to provide real-time responses to citizens' inquiries about government services, reducing pressure on public offices. In addition, predictive analytics can help government agencies plan more effectively by analyzing trends in population growth, revenue collection, or service demand. While AI adoption in Nigeria is still at an early stage, global trends suggest that it will play a major role in future governance systems (United Nations, 2024; OECD, 2021).

Improved citizen participation is another key prospect of digital governance in Nigeria. Digital platforms and social media have already begun to transform how citizens engage with government institutions. Through online portals, feedback systems, and mobile applications, citizens can now report issues, access information, and participate in decision-making processes more easily. For example, government complaint platforms and public feedback systems allow citizens to report service delivery issues directly to relevant agencies. This increased participation strengthens accountability and aligns with the DEG principle of citizen-centered governance, where services are designed around public needs rather than

bureaucratic convenience (Salih, 2023; United Nations, 2024).

The development of integrated national digital systems also represents a major prospect for Nigeria's public administration. Currently, different government databases such as the Bank Verification Number (BVN), National Identification Number (NIN), tax systems, and immigration records operate in partially connected frameworks. However, there is a growing movement toward full integration of these systems into a unified national digital infrastructure. For example, linking identity databases with financial, health, and education systems can improve coordination, reduce duplication, and enhance service delivery efficiency. Such integration reflects the core principle of Digital Era Governance, which emphasizes reintegration of fragmented systems into unified digital platforms for better governance outcomes (Dunleavy et al., 2006; World Bank, 2022).

Conclusion

Technology has become a major force driving public administration reforms in Nigeria by changing the way government institutions operate and deliver services. Through the use of digital systems such as e-governance platforms, payroll systems, revenue collection tools, and identity management systems, government processes have become more organized

faster and more transparent. These changes have helped improve efficiency, reduce corruption, and strengthen accountability in public service delivery. At the same time, the introduction of technology has also created new opportunities for better communication between the government and citizens and has supported the modernization of administrative processes across different sectors. In all, technology continues to play a key role in shaping a more efficient, responsive, and modern public administration system in Nigeria.

1.4 Recommendations

- i. The Federal Government of Nigeria should allocate specific annual budgetary provisions for upgrading ICT infrastructure in public institutions, particularly by providing stable internet services, alternative power supply systems such as solar energy, and modern digital equipment in Ministries, Departments, and Agencies (MDAs) across both urban and rural areas.
- ii. Ministries, Departments, and Agencies (MDAs) should establish mandatory quarterly digital training and certification programmes for public servants to improve their competence in the use of e-governance platforms such as



- IPPIS, TSA, and electronic document management systems.
- iii. The National Information Technology Development Agency, in collaboration with telecommunications companies and state governments, should create community digital centers in rural and underserved areas to improve internet access, digital literacy, and citizens' ability to access online government services.
- iv. The Office of the National Security Adviser and ICT regulatory agencies should develop and enforce a centralized cybersecurity monitoring system for all government digital platforms, including regular security audits, data protection training for public officials, and rapid response mechanisms against cyberattacks.
- v. Government agencies responsible for public communication and service delivery should conduct regular public sensitization programmes through radio, television, social media, and local community outreach to educate citizens on the use of digital government platforms and reduce reliance on middlemen and unofficial agents in accessing public services.

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