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# E-READINESS AND E-GOVERNANCE FOR EFFECTIVE PUBLIC ADMINISTRATION IN NIGERIA (2015–2025)

**Chuka Johnny Chukwuka**
Department of Public Administration, DLI of University of Lagos
**Email:** chuka77dan@gmail.com

## Abstract
This study explores how e-readiness has influenced the implementation of e-governance in Nigeria's public administration between 2015 and 2025. It evaluates the country's ICT capacity, the rollout of digital governance initiatives, and their impact on administrative efficiency, accountability, and service delivery. Using a mixed-methods approach—including surveys, interviews, and policy document analysis—the study identified progress through reforms like the Treasury Single Account (TSA), Integrated Payroll and Personnel Information System (IPPIS), and digital service portals World Bank, (2020). However, persistent barriers such as low digital literacy, fragile cybersecurity, and inconsistent implementation across states remain (NITDA, 2020; UNESCO, 2021). The research concludes that while Nigeria has established a digital foundation, sustained investment in infrastructure, policy alignment, and digital capacity-building is essential for meaningful governance transformation (Ajayi, 2013; UN E-Government Survey, 2022).

**Keywords**: E-readiness, E-governance, Public Administration, Information Communication Technology, Service Delivery, Accountability, Nigeria.

## Introduction
Nigeria's public administration has historically struggled with inefficiency, corruption, and poor service delivery, despite numerous reform initiatives (Okot-Uma, 2004; Ezeani, 2006).

Bureaucratic bottlenecks, overlapping functions, and weak accountability mechanisms have undermined progress in service delivery. In recent years, however, digital technologies have offered new pathways for transformation. Globally, governments are leveraging information and communication technology (ICT) to enhance transparency, improve efficiency, and expand citizen access to services through e-governance (Heeks, 2001; UNDESA, 2020). In the African context, progress has varied. Countries like Rwanda and Kenya have become regional leaders in digital governance, driven by political will, strategic ICT investments, and citizen-oriented platforms (Mukamunana & Mafunisa, 2020; Misuraca et al., 2011). In contrast, Nigeria continues to face structural and institutional constraints, including infrastructure deficits and policy inconsistency (Ndukwe, 2011; Alateia et al., 2019). Between 2015 and 2025, Nigeria introduced several ICT-driven reforms have been introduced in Nigeria. These includes the Treasury Single Account (TSA), the Integrated Payroll and Personnel Information System (IPPIS), and the National Identity Management System (NIMS)—The overall initiative is to strengthen fiscal control, reduce fraud, and improve administrative planning (Federal Ministry of Finance, 2016; NIMC, 2021). Yet, concerns remain about Nigeria's e-readiness and the extent to which these initiatives have improved public sector performance (OECD, 2020).

**This Study Explores Three Core Questions:**

i. What was Nigeria's level of e-readiness from 2015 to 2025?
ii. How have e-governance initiatives been implemented in the public sector?
iii. To what extent has e-readiness contributed to effective public administration during this period?

It is hoped that the outcome of this research will offer a timely contribution to policy and academic debates on governance reform. While ICT's role in development has been widely acknowledged, limited work has examined the long-term interplay between e-readiness, digital governance, and administrative outcomes in Nigeria (Ogunleye, 2014; Ndou, 2004). This study addresses that gap, offering evidence-based insights for reform-minded policymakers and scholars.

## Literature Review and Theoretical Framework

**Conceptual Clarifications:** E-readiness refers to a nation's preparedness to adopt and utilize ICT in governance, encompassing infrastructure, policy frameworks, institutional capacity, and digital literacy (Dada, 2006; Bridges.org, 2005). This is connected to E-governance which involves the strategic use of ICT to enhance public sector operations. The aim is to achieve greater transparency, accountability, efficiency, and citizen involvement (Heeks, 2006; Misuraca et al., 2011). Public administration denotes the structures and processes through which government policies are executed and services delivered to citizens (Ezeani, 2006). While ICT (Information and Communication Technology) includes tools like the internet, mobile technology, databases, and software that facilitate digital interaction and information management (World Bank, 2020), Digital Transformation represents the systemic integration of ICT into government functions, altering how services are delivered and how citizens engage with the state (OECD, 2020; United Nations, 2022). There is of course between E-Readiness and E -Governance.

**Global Perspectives on E-Readiness and E-Governance**

Studies in developed countries consistently show that high e-readiness levels is reflected in widespread broadband access, strong legal frameworks, and digital competence The outcome correlate with effective e-governance (UNDESA, 2020; UN E-Government Survey, 2022). Nations such as Sweden, Denmark, and South Korea regularly top the UN E-Government Development Index due to robust ICT infrastructure, high institutional trust, and strong citizen engagement (United Nations, 2022). These environments enable governments to offer seamless, secure, and user-friendly digital services that improve public trust and reduce transaction costs (OECD, 2020; Misuraca et al., 2011).

**African Experiences**

Across Africa, the adoption of e-governance has produced mixed results. Rwanda's Irembo platform, for instance, allows citizens to access over 100 government services online, significantly reducing bureaucratic hurdles (Mukamunana & Mafunisa, 2020). Kenya's success with platforms such as M-Pesa and Huduma Centres reflects strong political will, private sector collaboration, and citizen-centric innovation (World Bank, 2018). However, in many African countries, weak infrastructure, low ICT skills, limited funding, and fragmented policy implementation continue to undermine progress (Dada, 2006; Alateia et al., 2019). The literature emphasizes that success in Africa hinges not just on technology, but also on institutional reform, capacity building, and leadership commitment (Ndou, 2004; Heeks, 2001).

**The Nigerian Context**

Nigeria has introduced several e-governance initiatives, including the TSA (centralizing government revenue), IPPIS (eliminating ghost workers), and BVN (enhancing banking security) (Federal Ministry of Finance, 2016; NITDA, 2020). Most recently, the Bimodal Voter Accreditation System (BVAS) was deployed during the 2023 general elections. This biometric device was intended to improved voter authentication, curbed fraud, and enhanced electoral credibility by reducing multiple voting and manual result manipulation (INEC, 2023). Assessment of the relationship between E -Readiness and E-Governance , challenges revealed persistent for instance the BVAS faced technical failures and connectivity issues in rural areas, limiting its real-time functionality (Yagboyaju & Akinboye, 2023). More broadly, adoption of digital platforms has been uneven across the country, constrained by low internet penetration, insufficient civil service training, and weak cybersecurity frameworks (NITDA, 2020; Ogunleye, 2014). Labour union resistance has also stalled full-scale implementation of digital systems like IPPIS in some sectors (Ajayi, 2013). Without addressing these systemic issues, Nigeria's digital governance efforts risk remaining fragmented and unsustainable (OECD, 2020).

**Theoretical Framework**

This study draws on three interrelated theoretical models to frame its analysis:

i. **Technology Acceptance Model (TAM):** Developed by Davis (1989), TAM explains how users' perceptions of usefulness and ease of use influence the adoption of new technologies within organizations. In public administration, this model helps interpret civil servants' attitudes toward platforms like TSA, IPPIS, and BVAS (Davis, 1989; Heeks, 2001).
ii. **Diffusion of Innovation Theory:** Introduced by Rogers (2003), this theory examines how new technologies spread across institutions and communities. It is useful for understanding

the pace and pattern of e-governance adoption across different states and ministries in Nigeria.

iii. **Good Governance Theory:** This normative framework emphasizes transparency, accountability, participation, and rule of law as benchmarks of effective governance (Kaufmann et al., 2010). It guides this study's assessment of whether digital governance tools contribute meaningfully to administrative outcomes. These frameworks collectively provide a robust lens for analyzing the link between e-readiness, digital implementation, and governance performance in Nigeria's public sector.

## Methodology

This study adopted a mixed-methods research design to assess Nigeria's e-readiness and e-governance implementation between 2015 and 2025. Combining quantitative and qualitative techniques allowed for a comprehensive evaluation of both the structural conditions and lived experiences shaping digital transformation in public administration (Creswell & Plano Clark, 2018).

### Data Collection Methods

Quantitative data were obtained through structured surveys administered to 400 civil servants working in federal ministries, departments, and agencies (MDAs) in Abuja, Lagos, and Uyo. The survey instrument measured ICT competence, e-readiness perceptions, and the degree of adoption of digital tools. Qualitative data were collected through 25 semi-structured interviews with ICT professionals, public administrators, and policymakers involved in Nigeria's e-governance ecosystem. These interviews explored implementation challenges, institutional responses, and perceived impact. Additionally, documentary analysis of relevant policy documents, administrative records, and official reports complemented the primary data and provided contextual insights (Bowen, 2009).

### Sampling Technique

A combination of purposive and stratified sampling was used to ensure diversity in rank, experience, and exposure to e-governance tools among respondents. Stratification helped capture perspectives from various departments and seniority levels, while purposive selection ensured that participants were knowledgeable and directly involved in ICT-enabled public service delivery (Etikan et al., 2016).

### Instruments and Measures

The survey questionnaire used a Likert scale to assess civil servants' perceived ICT proficiency, frequency of digital tool use, and attitudes toward specific e-governance initiatives like TSA and IPPIS. The interview guide focused on themes such as institutional readiness, training availability, policy coherence, infrastructure constraints, and citizen responsiveness to digital platforms. Key documents analyzed included NITDA's Strategic Roadmap (2020), Federal Ministry of Finance implementation reports (2016–2023), and the National Digital Economy Policy and Strategy (2020–2030).

## Data Analysis

Quantitative data were analyzed using descriptive statistics (e.g., means, frequencies) and regression models to identify correlations between e-readiness indicators and perceived improvements in administrative performance (Field, 2018). Qualitative data were subjected to thematic analysis, identifying recurring patterns across stakeholder responses. Themes such as "infrastructure limitations," "cybersecurity concerns," and "resistance to change" were systematically coded using NVivo software (Braun & Clarke, 2006). Triangulation across survey, interview, and document analysis enhanced the validity and reliability of the findings (Flick, 2018). These robust methodological frameworks enabled the study to capture both the structural conditions of Nigeria's e-readiness and the nuanced experiences of public servants navigating digital reforms.

## Findings

This section presents the core findings of the study in alignment with the three research questions that guided the inquiry: (a) Nigeria's level of e-readiness between 2015 and 2025, (b) the implementation of e-governance initiatives in the public sector, and (c) the extent to which e-readiness contributed to effective public administration within the specified period.

### Nigeria's Level of E-Readiness (2015–2025)

Findings indicate that Nigeria made modest, albeit uneven, progress in achieving e-readiness during the study period. E-readiness, commonly defined as a country's capacity to leverage information and communication technologies (ICT) for sustainable development and governance (Dada, 2006), was examined across three key domains: ICT infrastructure, policy frameworks, and human capital. In terms of ICT infrastructure, Nigeria recorded improvements in mobile and internet penetration, driven largely by increased investment in broadband and mobile networks (International Telecommunication Union [ITU], 2023). Nevertheless, the digital divide between urban and rural populations remained substantial, limiting equitable access to digital services. The regulatory and policy environment saw incremental development with the introduction of the National ICT Policy (2016), the National Digital Economy Policy and Strategy (2020–2030), and the Nigeria e-Government Master Plan (2019). These frameworks provided institutional direction for ICT integration in governance (Federal Ministry of Communications and Digital Economy [FMCDE], 2020). However, the implementation of these strategies varied significantly across federal, state, and local government levels. Human capital development efforts were evident in the rollout of digital skills training programs, particularly by the National Information Technology Development Agency (NITDA), targeting public sector employees (NITDA, 2021). Despite these efforts, many civil servants, especially at the subnational level, lacked the technical capacity to effectively utilize e-government tools. Persistent challenges included inadequate power supply, high cost of internet access, cybersecurity vulnerabilities, and institutional resistance to digital transformation (Adeleke & Matanmi, 2022). These constraints collectively impeded Nigeria's full realization of its e-readiness potential.

### Implementation of E-Governance Initiatives in the Public Sector

The implementation of e-governance initiatives in Nigeria's public sector exhibited both promise and limitations. E-governance, characterized by the strategic use of ICT to enhance government service delivery, transparency, and citizen engagement (Heeks, 2002), was

operationalized through several flagship programs and digital platforms. Notable successes included the digital transformation of services by key ministries, departments, and agencies (MDAs), such as the online registration portal of the Corporate Affairs Commission, the deployment of the Treasury Single Account (TSA), and the Nigeria Immigration Service's e-passport system (World Bank, 2022). These initiatives contributed to administrative efficiency and fiscal transparency. Reforms in public financial management were particularly impactful. The TSA and the Integrated Payroll and Personnel Information System (IPPIS) facilitated greater accountability in public finance by curbing leakages and eliminating ghost workers from the civil service payroll (Agbo, 2020). However, citizen engagement through digital platforms remained limited. While government agencies increasingly utilized websites and social media for public communication, these platforms were largely unidirectional and lacked mechanisms for interactive participation (Okot-Uma, 2018). As such, e-governance in Nigeria has not yet matured into a participatory model. System fragmentation posed a significant barrier to effective implementation. Many MDAs developed digital platforms in isolation, resulting in poor interoperability and coordination (Ezeani, 2021). Furthermore, institutional inertia, inadequate ICT funding, and inconsistent policy commitment weakened the overall integration and sustainability of e-governance reforms (Nwankwo & Omeje, 2022).

**Contribution of E-Readiness to Effective Public Administration**

E-readiness contributed positively to several dimensions of public administration during the period under review, although its overall impact was constrained by systemic limitations. Improvements in service delivery were recorded in MDAs that had adopted digital platforms, notably in areas such as online tax processing, digital ID issuance, and civil service payroll management. These reforms resulted in reduced processing times, greater transparency, and improved public access to services (United Nations, 2022). Financial transparency and accountability were enhanced through the use of ICT-based systems such as TSA and IPPIS. These tools enabled real-time monitoring of government expenditures and personnel data, helping to minimize corruption and inefficiency (Adah, 2023). Despite these gains, the effectiveness of public administration remained hindered by institutional capacity deficits. A significant proportion of the public workforce lacked the ICT skills necessary to operate and maintain digital systems, particularly at the local government level (Adeleke & Matanmi, 2022). Additionally, most e-governance initiatives lacked robust monitoring and evaluation mechanisms, thereby limiting data-driven policy refinement and long-term impact assessment (NITDA, 2021). Overall, while e-readiness facilitated some advancements in administrative efficiency and transparency, its transformative potential was undermined by gaps in capacity, infrastructure, and strategic alignment.

**Conclusion**

Between 2015 and 2025, Nigeria achieved incremental progress in e-readiness and the implementation of e-governance initiatives. These advancements contributed to improvements in administrative efficiency, fiscal accountability, and service delivery. However, the broader goals of effective and participatory public administration remain unrealized, primarily due to infrastructural deficits, limited human capital, poor interoperability, and weak institutional

coordination. To build on the gains made during this period, future efforts must prioritize strategic integration, capacity development, and citizen-centered digital governance.

**Strategic Recommendations**

To address the structural barriers identified and build a more sustainable digital governance ecosystem, the following five actionable recommendations are proposed:

i. First, expanding ICT infrastructure nationwide is crucial. Broadband inequality, particularly in rural and underserved areas, poses a significant barrier to inclusive e-governance. To address this, national broadband expansion projects should be prioritized, aligning with the Nigeria National Broadband Plan (NITDA, 2020; ITU, 2023).
ii. Second, institutionalizing continuous digital literacy training for civil servants is essential. Competence in digital tools and platforms is key to effective government service delivery. Therefore, mandatory and tiered digital skills training programs should be implemented across all ministries, departments, and agencies (Eze et al., 2022).
iii. Third, harmonizing federal and state e-governance frameworks will help overcome fragmentation that undermines scalability and interoperability. A unified, interoperable national e-governance architecture should be developed, with clear roles defined for subnational governments and supported by a central coordination agency (Ogbonna & Odi, 2021).
iv. Fourth, strengthening cybersecurity and data protection laws is vital to building trust in digital systems. Updating cybersecurity policies, enforcing data privacy laws, and investing in training for cyber response units across government will safeguard citizens' information and ensure the security of e-government services (UNDP, 2018).
v. Finally, enhancing citizen engagement and public awareness is necessary to increase the uptake of digital services. To address the limited awareness among citizens, national campaigns, community workshops, and multi-language digital literacy initiatives should be launched to inform the public about available e-services (Iwuoha & Anazodo, 2020).

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