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Revolutionizing Grassroots Governance: ICT and Artificial Intelligence as Catalysts for Smart Administration in Nigerian Local Government Areas.

Dr. Chioma Ogechukwu Ozodo1, **Uzor, Obiora Anthony2**

1Department of Cyber-security, Shanahan University, Onitsha, Anambra State, Nigeria.
Email: faschomy2023@gmail.com, Phone: +2348037652263.
2Department of Business Administration, Shanahan University, Onitsha, Anambra State, Nigeria.
Email: obiorauzor2@gmail.com, Phone: +2347038859630.
ORCID ID: https://orcid.org/0009-0003-5348-0781

Abstract*: This study explores the transformative role of Information and Communication Technology (ICT) and Artificial Intelligence (AI) in enhancing administrative efficiency, transparency, and responsiveness in Nigerian Local Government Areas (LGAs). Rooted in the Technology Acceptance Model (TAM), the research investigates the extent of ICT and AI adoption, the perceived usefulness and ease of use among local government actors, and the potential of these technologies to drive smart governance at the grassroots level. Employing a qualitative content analysis methodology, the study critically examined a range of secondary data sources including academic publications, policy documents, official reports, and institutional frameworks. Findings reveal that while ICT adoption is moderately established across some LGAs, especially in urban areas, AI implementation remains minimal and largely conceptual. Nonetheless, where ICT is operational, it has significantly improved administrative outcomes, including record management, service delivery speed, and citizen engagement. The study also identifies major challenges such as inadequate infrastructure, low digital literacy, poor funding, and lack of political will, which hinder deeper integration of ICT and AI technologies in local governance. Based on these insights, the study concludes that ICT and AI possess substantial potential to revolutionize grassroots administration in Nigeria, but this promise can only be realized through deliberate, phased, and well-supported strategies. Key recommendations include: (1) institutionalizing ICT and AI capacity building programs for LGA personnel, and (2) developing a phased, data-driven digital governance strategy tailored to the unique realities of different LGAs. The study contributes to the growing body of literature on smart governance in developing countries and underscores the urgent need for policy coherence, capacity enhancement, and stakeholder collaboration in the digital transformation of local governance in Nigeria.*

Keywords: ICT adoption, Artificial Intelligence, Smart governance, Public administration, Nigeria, Digital transformation, Grassroots development

Introduction

The evolution of Information and Communication Technology (ICT) and Artificial Intelligence (AI) has profoundly influenced administrative systems globally, offering more efficient, transparent, and data-driven models of governance. In the public sector, particularly at the grassroots level, these technologies have the potential to reform administrative structures by enhancing service delivery, streamlining bureaucratic processes, and promoting citizen engagement (Heeks, 2018; UNDESA, 2020). Local Government Areas (LGAs), as the closest tier of government to the people, are central to development efforts in Nigeria. However, their performance is often undermined by inefficiency, corruption, and poor accountability (Adeyemo, 2005; Okotoni & Erero, 2005).

ICT, when properly integrated into local government administration, can transform how services are delivered, including in areas such as revenue collection, public communication, and project monitoring (Okwueze & Chigbo, 2021). Similarly, AI tools such as chatbots, predictive analytics, and automated workflows have demonstrated significant promise in modernizing public administration, reducing human errors, and enabling proactive governance (Zhou, Fan & Ma, 2020). These technologies can help bridge the trust gap between local governments and citizens by promoting open data, real-time feedback, and inclusive decision-making.

In Nigeria, despite national policy frameworks advocating digital transformation (e.g., the National Digital Economy Policy and Strategy 2020–2030), the actual application of ICT and AI at the local government level remains limited and uneven (NITDA, 2021). Structural barriers such as poor infrastructure, low digital literacy, and resistance to change among administrative personnel hinder effective deployment. Nevertheless, the COVID-19 pandemic has underscored the urgent need for technology-driven governance, even at the most decentralized levels.

This study seeks to investigate how ICT and AI can be leveraged to revolutionize grassroots governance by enabling smart administration in Nigerian LGAs. It focuses on the drivers, challenges, and potential outcomes of deploying such technologies in local government administration.

Statement of the Problem

Local government administration in Nigeria is widely perceived as inefficient, opaque, and often unresponsive to community needs. Many LGAs still rely on manual methods for record-keeping, communication, and decision-making, which contributes to delays, mismanagement of resources, and limited citizen engagement (Ezeani, 2012; Ayo & Ekong, 2020). While ICT and AI offer tools that can address these issues, their adoption at the local government level remains critically low.

There is a conspicuous gap between policy and practice in terms of digital governance implementation in LGAs. Most research and investments have concentrated on federal and state levels, leaving grassroots administration technologically underdeveloped. Furthermore, there is limited empirical evidence on the practical impact of ICT and AI on administrative efficiency, transparency, and responsiveness at the LGA level in Nigeria.

This study seeks to fill this gap by examining how ICT and AI technologies can be harnessed to achieve smart administration in Nigerian LGAs. It explores the extent of current adoption, the factors influencing implementation, and the outcomes associated with these technologies.

Objectives of the Study

The broad objective of the paper is to examine the role of ICT and Artificial Intelligence in promoting smart administration within Nigerian Local Government Areas. Specifically, the paper seeks to:

1. To assess the level of ICT and AI adoption in the administrative operations of selected Nigerian Local Government Areas.
2. To evaluate the impact of ICT and AI tools on the efficiency, transparency, and responsiveness of local government administration.

Research Questions

For the purpose of the study, the researchers came-up with the research questions below:

1. What is the current level of ICT and AI adoption in Nigerian Local Government Areas?
2. How do ICT and AI tools influence administrative efficiency, transparency, and responsiveness at the grassroots level?

Research Hypotheses

The following tentative statements guided the study**:**

- **H_{01}:** There is no significant level of ICT and AI adoption in the administrative operations of Nigerian Local Government Areas.
- **H_{02}:** ICT and AI tools do not have a significant impact on the efficiency, transparency, and responsiveness of local government administration in Nigeria.

Scope of the Study

This study is centered on a qualitative content analysis of how Information and Communication Technology (ICT) and Artificial Intelligence (AI) are being positioned and utilized as tools for smart administration in Nigerian Local Government Areas (LGAs). The study is delimited to analyzing existing government policies, official documents, strategic plans, public sector reform frameworks, and academic literature that relate to digital governance at the local government level in Nigeria.

Conceptual Clarifications
Information and Communication Technology (ICT)

Information and Communication Technology (ICT) encompasses a wide range of digital tools and systems used to collect, process, store, transmit, and manage data. These include hardware and software applications such as computers, smart-phones, the internet, cloud computing, and satellite systems, which facilitate real-time communication, automation, and decision-making processes (ITU, 2022; UNESCO, 2023). ICT is no longer confined to infrastructure alone; it now includes platforms, applications, and integrated systems that support digital innovation and intelligent service delivery across sectors.

In the sphere of governance and public administration, ICT has evolved from a support function to a transformative mechanism that enhances operational efficiency, accountability, transparency, and citizen engagement (Heeks, 2021; Oseni, 2024). By enabling digital platforms for service delivery, data-driven policymaking, and participatory communication, ICT fosters responsive and inclusive governance, especially at the local government level where administrative bottlenecks are most felt (Paul & Eghe, 2023).

Contemporary literature emphasizes that ICT is not just a technological tool, but a strategic enabler of public sector innovation and socio-economic development (Dickson & Chujor, 2024). Its adoption in local governance facilitates e-services such as online tax systems, digital identity management, and community feedback mechanisms, which are essential for achieving the Sustainable Development Goals (SDGs) and Nigeria's digital economy agenda (NITDA, 2023).

Given its multidimensional potential, ICT remains central to discussions on smart governance, digital transformation, and institutional reform, especially within developing countries. However, successful implementation requires overcoming infrastructural gaps, capacity limitations, and policy misalignments (Ademola, 2024; Monday, Okoye & Ibrahim, 2024).

Conceptualizing Artificial Intelligence (AI)

Artificial Intelligence (AI) refers to the ability of machines, particularly computer systems, to perform tasks that typically require human intelligence. These tasks include learning, reasoning, problem-solving, perception, and natural language processing (Russell & Norvig, 2021). AI systems are designed to simulate cognitive functions through algorithms that enable them to analyze data, make decisions, and improve performance over time without explicit human intervention (Kaplan & Haenlein, 2019).

AI is broadly categorized into narrow AI, which is designed for specific tasks such as facial recognition or voice assistants, and general AI, which aspires to perform any intellectual task a human can do (Nilsson, 2014). In public administration, AI is increasingly used to enhance decision-making, automate repetitive administrative tasks, predict service needs, and personalize public service delivery (Sun & Medaglia, 2019).

In the context of governance, AI offers transformative potential by increasing efficiency, transparency, and responsiveness in public institutions. It supports intelligent resource allocation, predictive analytics for policy planning, and improved citizen interaction through AI-powered chatbots and virtual assistants (Wirtz, Weyerer & Geyer, 2019). However, ethical considerations such as algorithmic bias, data privacy, and accountability remain central to the discourse on AI integration in the public sector (Cath, 2018).

As AI continues to evolve, its strategic application in local government administration could play a vital role in revolutionizing grassroots governance and bridging service delivery gaps in developing countries like Nigeria (Oseni, 2024).

Smart Administration in Local Government

Smart administration refers to the use of technology, especially ICT and AI, to enhance the efficiency, responsiveness, and transparency of governance systems. At the local level, smart administration aims to improve service delivery, promote citizen participation, and support data-driven decision-making (Scholl & AlAwadhi, 2016). In the context of Nigerian Local Government Areas (LGAs), smart administration is envisioned as a transformative approach to overcoming chronic inefficiencies, corruption, and lack of accountability in grassroots governance (Ezeani, 2012; Ojo, 2014).

The idea of smart governance aligns with the broader objectives of e-governance, which emphasizes digital tools to facilitate communication between government and citizens, automate administrative processes, and improve performance measurement (Heeks, 2006). ICT and AI are increasingly seen not just as operational tools but as strategic enablers of public sector innovation (Margetts & Dorobantu, 2019).

Information and Communication Technology (ICT) in Governance

The deployment of ICT in governance has evolved over the past two decades, particularly in developing countries seeking to modernize public administration. ICT enables the digitization of government records, online service delivery, real-time communication, and financial transparency (Bwalya & Mutula, 2016). In Nigeria, the introduction of ICT into public service has seen some progress at the federal and state levels, with digital platforms being used for tax payments, procurement, and civil service reforms (Ayo & Ekong, 2020).

However, at the local government level, ICT integration remains limited and fragmented. According to Okwueze and Chigbo (2021), most Nigerian LGAs still rely heavily on manual processes for budgeting, personnel management, and public engagement. Challenges include poor infrastructure, lack of digital skills among local government staff, and limited funding for technological upgrades. Yet, studies show that where ICT has been effectively deployed, there is a noticeable improvement in transparency and administrative coordination (Adeyemo, 2011; Ojo, 2014).

Artificial Intelligence (AI) in Public Administration

AI in governance encompasses a wide range of technologies, including machine learning, natural language processing, and robotic process automation, which can perform administrative tasks with minimal human input (Zhou et al., 2020). In public administration,

AI tools are used for predictive analytics, chatbots for public inquiries, automated workflows, and fraud detection (Sun & Medaglia, 2019).

In the Nigerian context, AI is still in its infancy in the public sector, especially at the local level. While national AI strategies have been proposed, practical implementation is yet to trickle down to LGAs (NITDA, 2021). Nonetheless, AI holds considerable promise for streamlining local government functions, such as data management, citizen feedback systems, and resource allocation. For example, predictive tools could aid in identifying community needs or monitoring project implementation in real time.

Moreover, AI can reduce administrative overload and enable more agile responses to local issues by assisting with decision-making, document processing, and grievance redressal (Eggers et al., 2017). The major barriers remain infrastructure deficits, ethical concerns, and a shortage of local expertise to design, implement, and maintain AI systems (Olatunji & Adebayo, 2022).

E-Government and Local Governance in Nigeria

E-government initiatives in Nigeria have been largely top-down, with significant attention paid to central ministries, departments, and agencies (MDAs), often neglecting LGAs. According to UNDESA (2020), Nigeria ranks moderately in global e-government indices but scores low in subnational and rural e-governance development. LGAs often lack the institutional autonomy and technical capacity to independently design or adopt digital platforms (Igbokwe-Ibeto, 2012).

However, some localized success stories exist. For example, the use of biometric systems for salary administration and digital tax collection platforms in select LGAs has shown that ICT can reduce fraud and improve efficiency (Oni et al., 2016). These cases highlight the need for systematic studies to assess what works and why, particularly in diverse socio-political settings within Nigeria.

The Opportunities of ICTs as a means of Public Service Delivery in the Nigeria Civil Service

According to Obi, Uzor & Chukwurah (2020), there is no doubt that Information and Communication Technologies (ICTs) present significant opportunities for Nigeria, and developing countries in general, particularly in enhancing public service delivery and improving citizen satisfaction. This underscores the strong connection between ICT application, the optimization of government functions, and the attainment of key social development goals, making a compelling case for the sustained integration of ICTs within the country's civil service.

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. In a study carried out in 2003, the European Commission observed that ICTs application enables the public sector to maintain and strengthen good governance in the knowledge society, create a public sector that is open and transparent, governments that are understandable and accountable to the citizens and open to democratic involvement and scrutiny. It also ensures that the public sector is at the service of all, promotes a productive public sector that delivers maximum value for tax payers' money, less time is wasted standing in queues, errors are drastically reduced, more ties are available for professional face-to-face service and the jobs of the civil servants becomes rewarding in the process (Nweke, 2007a; 2007b).

Indeed, extant literature is replete with the great opportunities of ICTs as an efficient and effective means of public service delivery. ICTs innovation and revolution has no doubt brought considerable potential to initiatives aimed at fighting corruption and increasing the participation of citizens in the institutions of government. To be specific, ICTs have opened a new e-governance space or route that has huge potential for improving opportunities for the participation of citizens in governmental 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

Challenges to ICT and AI Implementation at the Local Level

Numerous studies identify barriers to technology adoption in Nigerian LGAs. These include:

- **Infrastructural deficits:** Many rural LGAs lack basic electricity, internet access, and ICT hardware (Adegboyega, 2019).
- **Human capital limitations:** There is a shortage of skilled personnel trained in ICT and AI operations within local governments (Ezeani, 2012).
- **Resistance to change:** Bureaucratic inertia and fear of job loss often lead to resistance among civil servants (Oluwatobi et al., 2021).
- **Policy inconsistency and poor funding:** The lack of sustained government commitment and erratic budgeting undermine digital governance programs (Ayo & Ekong, 2020).

Research Gap

Despite the growing discourse on digital transformation in Nigeria, there is a dearth of empirical literature specifically addressing the integration of ICT and AI in local government administration. Most existing studies are either focused on federal/state levels or on general ICT use in governance without isolating the dynamics at the grassroots level (Ojo, 2014; Adegboyega, 2019). This study aims to fill that gap by providing a nuanced content analysis of policy documents, institutional reports, and contextual data related to LGAs.

Theoretical Framework

The study is guided by the Technology Acceptance Model (TAM) developed by Davis (1989)**.** TAM posits that the perceived usefulness and ease of use of a technology influence its adoption (Davis, 1989), which is relevant in understanding how LGA staff respond to ICT and AI tools.

Core Assumptions

- The acceptance and use of new technology depend primarily on two user perceptions:
    - **Perceived Usefulness (PU):** The degree to which an individual believes that using a technology will enhance their job performance.
    - **Perceived Ease of Use (PEOU):** The degree to which an individual believes that using the technology will be free of effort.
- Behavioral intention to use technology is influenced by these perceptions, which are shaped by external factors such as training, organizational support, and policy environment.

Relevance to the Study

In the context of LGAs in Nigeria, TAM helps explain the attitudes and readiness of local government employees and administrators to adopt ICT and AI tools. Many local government personnel may resist technological changes due to lack of confidence, fear of redundancy, or unfamiliarity with digital systems. TAM offers a valuable framework to assess these psychological and organizational barriers.

Application to the Study

The study used TAM to examine:

- How local government staff perceive the usefulness and ease of using ICT and AI.
- The influence of these perceptions on their willingness to adopt digital platforms and AI-enabled administrative processes.
- The impact of external variables such as training programs, management support, and infrastructure availability on technology acceptance.

Methodology

This study adopts a qualitative research design based on content analysis, a method suited for systematically interpreting textual information from documents, reports, policies, and other narrative data. The purpose is to extract meaningful insights on how ICT and AI are understood, discussed, and implemented in the context of local government administration in Nigeria.

Discussion of Findings

There is no significant level of ICT and AI adoption in the administrative operations of Nigerian Local Government Areas**.** The content analysis of policy documents, scholarly literature, and field reports revealed that ICT adoption in Nigerian LGAs is moderate and uneven**,** while AI adoption remains largely negligible. Although some LGAs have implemented ICT solutions like digital record keeping, payroll automation, and basic service portals, most lack the infrastructure, personnel, and resources to scale these efforts. AI tools (such as chatbots, predictive analytics, or automated workflows) are still largely absent, except in experimental or pilot phases in a few urban areas.

ICT and AI tools do not have a significant impact on the efficiency, transparency, and responsiveness of local government administration in Nigeria. The study found consistent evidence from literature and reports indicating that where ICT has been adopted**,** efficiency, transparency, and citizen responsiveness have improved**.** ICT platforms reduce bureaucratic delays, improve document management, and facilitate information dissemination. AI, although not widely used, is shown in global best practices to improve decision-making and service delivery, suggesting high potential for impact in the Nigerian context if implemented.

Conclusion

This study concludes that ICT adoption in Nigerian Local Government Areas is present but inconsistent, while AI integration remains nascent. Nevertheless, where these technologies have been implemented, they have demonstrated clear benefits in administrative performance, such as improved efficiency, transparency, and responsiveness to citizens**.**

The rejection of both null hypotheses indicates that ICT and AI are crucial tools for driving smart governance at the grassroots level. The findings support the argument that local government modernization is achievable through targeted technology adoption, but requires sustained investment, political will, and capacity building**.**

Recommendations

In line with the findings, these recommendations were generated:

Given the uneven adoption of ICT and the near absence of AI tools in most Nigerian LGAs, there is a critical need to build institutional and human capacity. This includes not only providing digital tools but also developing the technical competencies and managerial capabilities necessary for effective usage.

To bridge the policy-practice gap and maximize the benefits of technology, a strategic, phased approach should be adopted to guide ICT and AI deployment in LGAs. This strategy should be data-driven, context-specific, and aligned with both national digital economy goals and local realities.

Contribution to Knowledge

This study makes significant contributions to both academic discourse and practical governance in the following ways:

1. **Innovative Integration of ICT and AI in Local Governance**: The research presents a novel framework for integrating Information and Communication Technology (ICT) and Artificial Intelligence (AI) into grassroots governance structures in Nigeria. Unlike prior studies that focus predominantly on ICT adoption at the federal or state levels, this study uniquely emphasizes the local government tier, where governance is closest to the people and administrative efficiency has historically been weakest.
2. **Context-Specific Smart Governance Model**: The study proposes a contextually tailored model for smart administration, reflecting the socio-political and infrastructural realities of Nigerian Local Government Areas (LGAs). This model offers practical insights into how ICT and AI can improve transparency, service delivery, citizen engagement, and decision-making at the grassroots level.
3. **Bridging the Digital Governance Gap in Developing Nations**: By focusing on Nigeria, a representative developing country with complex governance challenges, this research addresses a critical gap in global literature on e-governance. It expands the discourse beyond the often-studied experiences of developed nations, offering a Southern perspective that enriches the global understanding of digital transformation in public administration.

Recommendations for Further Studies

1. **Comparative Studies across Regions and Countries**: Future research could explore comparative analyses between different regions within Nigeria or between Nigeria and other developing countries. This would help to identify regional variations, best practices, and transferable models of ICT and AI integration in local governance.
2. **Sector-Specific Applications of ICT and AI**: Further studies should examine how ICT and AI can be applied to specific sectors of local government administration, such as healthcare delivery, waste management, revenue collection, or public education, to assess sectoral impact and outcomes.
3. **Longitudinal Studies on Technology Adoption**: There is a need for longitudinal studies that track the implementation and impact of smart governance initiatives over time. Such studies would provide insights into the sustainability, scalability, and adaptability of ICT and AI-driven reforms in local governance.

References

Adegboyega, O. (2019). ICT and governance: The Nigerian local government perspective. *Journal of African Local Governance, 7*(1), 35–50.

Ademola, Y. (2024). Leadership and digital readiness in local governance. *International Review of Public Management, 19*(2), 55–71.

Adeyemo, A. B. (2011). E-government implementation in Nigeria: An assessment of Nigeria's global e-government ranking. *Journal of Internet and Information Systems, 2*(1), 11–19.

Adeyemo, D. O. (2005). Local government and health care delivery in Nigeria: A case study. *Journal of Human Ecology, 18*(2), 149–160.

Ayo, C. K., & Ekong, U. O. (2020). Digital government in Nigeria: History, strategies and implementation. *Digital Policy, Regulation and Governance, 22*(1), 51–65.

Bwalya, K. J., & Mutula, S. M. (2016). *E-government: Implementation, adoption and synthesis in developing countries*. Walter de Gruyter. https://doi.org/10.1515/9783110457697

Cath, C. (2018). Governing artificial intelligence: Ethical, legal and technical opportunities and challenges. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences, 376*(2133), 20180080.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340. https://doi.org/10.2307/249008

Dickson, T., & Chujor, K. (2024). Public sector digitalization in Nigeria: Opportunities and constraints. *Nigerian Journal of Public Administration and Technology, 8*(1), 88–104.

Eggers, W. D., Schatsky, D., & Viechnicki, P. (2017). *AI-augmented government: Using cognitive technologies to redesign public sector work*. Deloitte Insights. https://www2.deloitte.com/insights/us/en/focus/cognitive-technologies/artificial-intelligence-government.html

Ezeani, E. O. (2012). *Delivering the goods: Repositioning local governments in Nigeria to achieve the Millennium Development Goals*. Snaap Press.

Gupta, M.P. and Jana, D. (2003).‟E-government evaluation: A framework and case study; government Information. *Quarterly, vol 20,365-387.*

Heeks, R. (2006). *Implementing and managing e-government: An international text*. SAGE Publications.

Heeks, R. (2018). *Information and communication technology for development (ICT4D)*. Routledge. https://doi.org/10.4324/9781315652603

Heeks, R. (2021). *Information and communication technology for development (ICT4D)*. Routledge.

Igbokwe-Ibeto, C. J. (2012). Issues and challenges in local government administration in Nigeria: The way forward. *African Journal of Social Sciences, 2*(1), 21–28.

International Telecommunication Union. (2022). *Measuring digital development: Facts and figures*. https://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx

Kaplan, A., & Haenlein, M. (2019). Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. *Business Horizons, 62*(1), 15–25.

Margetts, H., & Dorobantu, C. (2019). Rethink government with AI. *Nature, 568*(7751), 163–165. https://doi.org/10.1038/d41586-019-01099-5

Monday, J., Okoye, L., & Ibrahim, S. (2024). Evaluating ICT-based taxation systems in Nigerian LGAs. *West African Journal of Governance Innovations, 7*(1), 33–50.

National Information Technology Development Agency. (2023). *Nigeria's digital economy policy and strategy 2020–2030*. https://nitda.gov.ng

National Information Technology Development Agency (NITDA). (2021). *National Artificial Intelligence Policy (Draft)*. https://nitda.gov.ng/

National Information Technology Development Agency (NITDA). (2021). *Nigeria digital economy policy and strategy (2020–2030)*. https://nitda.gov.ng/

Nilsson, N. J. (2014). *Principles of artificial intelligence*. Morgan Kaufmann.

Nweke, E. N. (2007a). "Re-inventing administrative governance in Nigeria: Can Information and communication technologies (ICTs) make a difference?" *African Journal of Political and Administrative Studies, 3(1), 171- 194 [27]*

Nweke, E. N. (2007b). "Electronic service delivery as a model of public sector reform in Nigeria: A study of e- governance application in public service delivery", in Obi, E. A. and Dalhatu, M. Y. (eds.), *Current practices and problems of Nigerian public administration,* Onitsha: Book Point Educational Limited.

Obi, H.O; Uzor, O.A & Chukwurah, D.C.J. (2020), E-governance and service delivery in the Nigeria civil service. *World Journal of Innovative Research (WJIR). 2454-8236, 9 (3).*

Ojo, J. S. (2014). E-governance: An imperative for sustainable grassroots development in Nigeria. *Journal of Public Administration and Policy Research, 6*(4), 77–89. https://doi.org/10.5897/JPAPR2013.0266

Okotoni, O., & Erero, J. (2005). Manpower training and development in the Nigerian public service. *African Journal of Public Administration, 3*(2), 44–53.

Oluwatobi, S., Afolabi, B., & Ajayi, A. (2021). Resistance to ICT adoption in Nigeria's public sector: Exploring causes and remedies. *Nigerian Journal of Administrative Science, 19*(2), 53–67.

Okwueze, F. O., & Chigbo, C. O. (2021). ICT and local government administration in Nigeria: Challenges and prospects. *African Journal of Social Sciences, 11*(1), 35–49.

Oni, S., Ojo, M., & Ogunlade, D. (2016). ICT in local government administration in Nigeria: A case study of selected LGAs in Lagos State. *International Journal of Management Sciences, 8*(3), 117–128.

Oseni, A. (2024). E-service adoption and local government transformation in Nigeria. *African Journal of Governance and Development Studies, 11*(1), 45–62.

Paul, D., & Eghe, M. (2023). Citizen-centered e-governance and ICT access in Nigeria. *Journal of African Digital Policy, 6*(2), 120–135.

Russell, S. J., & Norvig, P. (2021). *Artificial intelligence: A modern approach* (4th ed.). Pearson.

Scholl, H. J., & AlAwadhi, S. (2016). Smart governance: A roadmap for research and practice. *Government Information Quarterly, 33*(4), 693–702. https://doi.org/10.1016/j.giq.2016.08.002

Scott, W. R. (2008). *Institutions and organizations: Ideas and interests* (3rd ed.). Sage.

Sun, T. Q., & Medaglia, R. (2019). Mapping the challenges of artificial intelligence in the public sector: Evidence from public healthcare. *Government Information Quarterly, 36*(2), 368– 383.

UNESCO. (2023). *ICT competency framework for teachers*. https://www.unesco.org/en/digital- education/teacher-competency

United Nations Department of Economic and Social Affairs (UNDESA). (2020). *E-government survey 2020: Digital government in the decade of action for sustainable development*. United Nations.

Wirtz, B. W., Weyerer, J. C., & Geyer, C. (2019). Artificial Intelligence and the public sector: Applications and challenges. *International Journal of Public Administration, 42*(7), 596– 615

Zhou, Y., Fan, X., & Ma, Z. (2020). Artificial intelligence in public administration: Challenges and opportunities. *Government Information Quarterly, 37*(3), 101–110. https://doi.org/10.1016/j.giq.2020.101410