



# **Implementation of ICT Policies and Efficiency of E-Service Delivery in Nigeria: Evidence from Abuja**

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## **Abstract**

Globally, public service delivery is being significantly redefined by the accelerated evolution of Information and Communication Technology (ICT). In Nigeria, over the years, successive governments have attempted to transform the public sector into digitalized and paperless institutions through the enactment of a series of policies and programmes. Successive administrations in Nigeria have enacted a series of ICT-related policies aimed at transforming public service delivery from paper-based, manual processes to digital, electronic systems. This study analyzes the influence of the implementation of ICT policies on e-service delivery in Abuja. The study used a quantitative survey design and sampled 217 respondents using a purposive sampling technique. It used a structured questionnaire administered across the six local government areas in Abuja. It investigated two hypotheses: (i) there is no effect of ICT policy implementation on the efficiency of e-service delivery in the public sector; and (ii) there is no effect of ICT policy implementation on citizen satisfaction with government e-services. Descriptive statistics, one-sample t-tests, and Pearson correlation analyses were conducted. Results revealed that ICT policy implementation positively and significantly influences e-service efficiency ( $M = 3.35, t = 8.748, p < .001$ ) and citizen satisfaction ( $M = 3.55, t = 15.376, p < .001$ ). A moderate positive relationship was found between policy-driven e-service efficiency and citizen satisfaction ( $r = 0.312, p < .001$ ). The two null hypotheses were rejected. Persistent obstacles to effective government e-service delivery include corruption, inadequate infrastructure, and poor policy implementation, which consistently hinder the effectiveness of these policies. The study recommends stronger enforcement, monitoring, and evaluation of digital economy policies, infrastructure investment, and digital literacy campaigns to enhance government e-service delivery in Abuja and across Nigeria.

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Keywords: ICT policy, e-government, e-service delivery, citizen satisfaction, Nigeria, Abuja, digital governance

**Keywords:**

## **Introduction**

The high pace of digitization has had a significant impact on public service delivery. Across developing and developed countries, ICT has emerged as the most prominent tool for enhancing service delivery, reducing bureaucracies, and enhancing accountability. In developing countries, e-government has been used as a vehicle of transformation capable of eradicating the inefficiencies of bureaucratic operations and bridging the long-standing gaps between the state and its citizens (Scholl, 2020). Nigeria has also actively pursued public sector digitization through a series of programmes and policies, including the National Digital Economy Policy and Strategy (NDEPS) 2020-2030, which has the objective of positioning Nigeria as a leading economy on the African continent. Unfortunately, the practical results have been far from the theoretical expectations. Despite the ambitious nature and apparent comprehensiveness of these policies, citizens continue to complain of unstable platforms, infrastructural deficiencies, particularly internet connectivity, and governance failures that undermine efficiency and transparency.

Abuja, the Federal Capital Territory (FCT) of Nigeria, presents a particularly instructive context for



examining the dynamics of policy effects. As the seat of the federal government, Abuja hosts both the administrative apparatus responsible for ICT policy implementation and a relatively educated, digitally engaged citizenry. Compared to other parts of Nigeria, Abuja benefits from comparatively better digital infrastructure and higher policy visibility, theoretically making it more conducive to the adoption of e-government. However, even within this favorable environment, there are still substantial inefficiencies in e-service delivery (Adeleye et al., 2025). Evidence from targeted policy enforcement in other federal agencies, such as the measurable efficiency gains recorded in the NIMC's NIN digitization program (Isah, Orugun, & Garba, 2024), suggests that implementation quality, not policy design alone, is the decisive variable in determining e-government outcomes.

This study is situated against this backdrop.

While existing scholarship has advanced understanding of Nigeria's e-government challenges at a national level, quantitative investigations that empirically test the relationship between ICT policy implementation, e-service efficiency, and citizen satisfaction in Abuja specifically remain limited. This study addresses that gap through a survey of 217 FCT residents, employing one-sample t-tests and Pearson correlation analysis to test two central hypotheses: that ICT policy implementation significantly influences the efficiency of e-government services in Abuja, and that a significant positive relationship exists between ICT policy-driven efficiency and citizen satisfaction. The findings are intended to provide an evidence base that policymakers in Nigeria's FCT and at the federal level can draw upon to strengthen the implementation and measurable impact of existing digital governance frameworks.

## **Statement of the Problem**

Despite the existence of robust policy frameworks promoting e-governance in Nigeria, implementation gaps remain conspicuous. Citizens continue to report unreliable digital platforms, inadequate access to e-services, and frustration with the pace of government digital transformation. The critical question is whether the policies designed to guide this transformation are being effectively implemented, and whether such implementation translates into measurable improvements in service efficiency and citizen satisfaction. Without rigorous empirical assessment, policymakers lack the evidence base required to make targeted interventions.

## **Research Questions**

This study is guided by the following research questions:

RQ1: How has the implementation of ICT policies influenced the efficiency of e-government services in Abuja?

RQ2: What is the relationship between the implementation of ICT policies and citizen satisfaction with government e-services in Abuja?



## **Objectives of the Study**

The main objective of this study is to critically examine the effect of ICT policies on government e-service delivery in Abuja. The specific objectives are:

1. To evaluate the impact of ICT policies on the efficiency and timeliness of selected e-government services in Abuja.
2. To investigate the relationship between ICT policy implementation and citizen satisfaction with e-services in Abuja.

## **Hypotheses**

H01: The implementation of ICT policies has no significant impact on the efficiency and timeliness of e-government services in Abuja.

H02: There is no significant relationship between the implementation of ICT policies and citizen satisfaction with e-government services in Abuja.

## **Significance of the Study**

This study makes several important contributions. Theoretically, it enriches the body of knowledge on digital governance and ICT policy implementation within an African urban context, extending the debate beyond commonly studied regions. Practically, the findings offer actionable evidence for Nigeria's federal and FCT-level policymakers, helping to identify specific areas where ICT policy implementation requires reinforcement. The study also provides a foundation for further research into e-government efficiency in other Nigerian states and comparable emerging economies on the continent.

## **Literature Review**

### **Conceptual Framework: ICT Policy and E-Government**

ICT policy in the context of e-government refers to the deliberate decisions, rules, and strategies formulated by governments to guide the adoption, deployment, and management of information technologies in the public sector. Scholl (2020) describes e-government as the use of digital ICT tools by government to deliver public services, facilitate citizen-government interaction, and improve internal governmental operations. The efficiency of such services is determined by their speed, reliability, accessibility, and cost-effectiveness relative to conventional manual processes.

The relationship between ICT policy implementation and e-service delivery efficiency is theoretically anchored in several frameworks. The Technology Acceptance Model (TAM), originally proposed by Davis (1989), posits that perceived usefulness and perceived ease of use are the primary determinants of user acceptance of information technology systems. In the context of e-government, TAM suggests that policies



enhancing the quality and usability of e-service platforms will increase citizen adoption. The Unified Theory of Acceptance and Use of Technology (UTAUT), advanced by Venkatesh et al. (2003), extends TAM by incorporating social influence and facilitating conditions, both of which are directly shaped by government ICT policy.

### **ICT Policy and E-Government in Nigeria**

Nigeria's engagement with e-government as a policy priority dates to the early 2000s with the introduction of the National Information Technology Policy of 2001. This was followed by successive frameworks, including the National IT Development Agency (NITDA) Act of 2007, which provided legal grounding for coordinating Nigeria's digital infrastructure development. Most recently, the NDEPS (2020-2030) articulates a comprehensive vision for a Nigeria in which digital technology drives economic growth, public sector reform, and citizen welfare.

Empirical evidence on the impact of these policies, however, remains mixed. Okonkwo and Abara (2022) found that while federal-level ICT policies in Nigeria had improved awareness of e-government services, actual service delivery efficiency remained constrained by infrastructure deficits and corruption. Similarly, Adebayo Olukoshi (2014) and Innocent Chukwuma (2017) observed that policy formulation in Nigeria frequently outpaces implementation, resulting in a persistent policy-practice gap that undermines public sector digital transformation. Conversely, studies by Isah, Orugun, and Garba (2024) on the National Identity Management Commission (NIMC) indicate that the adoption of digital technologies and policy-driven implementation mechanisms has significantly improved operational efficiency, including reduced processing time in National Identification Number (NIN) registration and enhanced service delivery, demonstrating that targeted policy enforcement and digitization can yield measurable efficiency gains.

### **Citizen Satisfaction and E-Government Services**

Citizen satisfaction is recognized as a critical metric in the evaluation of public service delivery, representing the degree to which service users perceive their needs and expectations to be met by a given service. In e-government literature, satisfaction is closely associated with service quality dimensions including reliability, responsiveness, assurance, and empathy, constructs drawn from the SERVQUAL framework of Parasuraman et al. (1988).

Ndou (2004) established that e-government implementation in developing countries is more likely to translate into citizen satisfaction when services are designed around local user contexts and supported by enabling infrastructure. This finding is particularly relevant for Nigeria, where digital divide issues rooted in unequal access to internet connectivity, power supply, and digital devices remain significant barriers to e-service utilization. Recent empirical and review studies across developing countries, including African contexts, show that the effectiveness of ICT and e-government initiatives depends more on the quality of implementation, institutional capacity, and monitoring mechanisms than on the mere availability of digital



platforms, highlighting implementation quality as a key driver of citizen satisfaction and service outcomes (Latupeirissa et al., 2024).

### **ICT Infrastructure and Service Efficiency in Nigeria's FCT**

The FCT of Abuja presents a relatively favorable context for e-government deployment compared to many other Nigerian regions. The territory benefits from higher rates of tertiary education, more stable electricity supply in certain districts, and greater internet penetration. Nevertheless, studies focused specifically on Abuja have identified corruption as the single most reported systemic barrier to effective e-government service delivery, followed closely by infrastructure inadequacy and weak policy enforcement (Oni, Ayo, & Mbarika, 2016; Eke, 2018).

These findings align with the broader literature suggesting that technical solutions are necessary but insufficient for e-government success. Bwalya (2009), in a study of e-government adoption in Zambia, argued that governance quality, including anti-corruption measures and accountability mechanisms, is an essential prerequisite for ICT policy to yield improvements in service delivery. This argument resonates strongly in the Nigerian context where, despite significant investments in digital infrastructure, service delivery outcomes often fall short of policy expectations due to governance failures.

A systematic review of e-government implementation in Nigeria by Adeleye et al. (2025) confirms that while there is enhanced commitment to federal-level policy, there have been limitations in the improvement of public service delivery due to institutional weaknesses and deficient infrastructure. Similarly, Oladimeji and Abdulkareem (2023) found that user satisfaction with government digital services is significantly undermined by poor platform reliability and weak responsiveness to citizen complaints. Across the broader developing-country literature, Latupeirissa et al. (2024) further establish that the effectiveness of ICT initiatives depends less on the mere availability of digital platforms and more on the quality of implementation, institutional capacity, and monitoring mechanisms in place.

### **Gaps in the Literature**

The existing literature reveals several gaps that this study addresses. First, most empirical studies on e-government in Nigeria have adopted a national scope, leaving city-level analyses, particularly for Abuja, underdeveloped. Second, quantitative investigations that directly test the statistical relationship between ICT policy implementation and both service efficiency and citizen satisfaction, using primary survey data from Abuja residents, are limited. This study addresses these gaps by providing a rigorous empirical analysis grounded in data collected directly from residents and service users in the Federal Capital Territory.

## **Research Methodology**

### **Research Design**



This study adopts a quantitative, descriptive, and correlational research design. A survey strategy was employed to collect primary data from citizens in Abuja who had experience with Nigerian government e-service platforms. A quantitative design was deemed appropriate given the study's objective of testing hypothesized relationships between ICT policy implementation, e-service efficiency, and citizen satisfaction, relationships that require statistical analysis of numerical data. This approach aligns with positivist epistemological assumptions that underpin hypothesis-driven social science inquiry.

### **Population and Sampling**

The target population comprised adult residents of Abuja, Nigeria's Federal Capital Territory, who had either used or attempted to use government e-service platforms. Given the absence of a precise population frame, a convenience sampling strategy combined with purposive snowball sampling was employed via an online questionnaire disseminated through professional networks, educational institutions, and community groups within the FCT. A final sample of 217 valid responses was obtained after screening for completeness and internal consistency. Of these, 194 respondents (89.4%) confirmed prior use of at least one government e-service platform, making the sample well suited for addressing the study's research questions.

### **Research Instrument**

Data were collected using a structured questionnaire comprising 36 items organized across six thematic sections: demographic characteristics, e-service usage patterns, ICT policy awareness, perceived impact of ICT policies on service efficiency, e-service efficiency self-assessment items, and citizen satisfaction indicators. Items measuring ICT policy impact on efficiency and citizen satisfaction were operationalized using five-point Likert scales ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The reliability of the efficiency scale (nine items) yielded a Cronbach's alpha of 0.644, while the satisfaction scale (six items) returned a Cronbach's alpha of 0.623, both within the acceptable range for exploratory research (Nunnally, 1978).

### **Data Analysis**

Data were analyzed using descriptive statistics (frequencies, means, and standard deviations), one-sample t-tests to test the null hypotheses against a neutral scale midpoint of 3.0, and Pearson product-moment correlation to test the relationship between composite efficiency and satisfaction scores. The significance threshold was set at  $p < .05$ . Composite scores for the efficiency dimension were calculated as the mean of nine policy-related efficiency items, and the satisfaction composite was computed from six satisfaction indicator items. All analyses were performed using Python 3 with the SciPy and pandas libraries.

## **Results**

### **Demographic Profile of Respondents**

Table 1 presents the demographic characteristics of the 217 survey respondents. The sample was predominantly male (57.6%, n = 125), with females constituting 41.5% (n = 90) of the sample. The largest age group was 41-50 years (41.0%, n = 89), followed by 31-40 years (29.0%, n = 63). The educational profile of respondents was notably high: 58.1% (n = 126) held postgraduate qualifications, and 39.6% (n = 86) held a tertiary (undergraduate) degree, reflecting the relatively high educational attainment in Abuja's FCT. The majority of respondents were employed (71.4%, n = 155), with self-employed individuals constituting 22.1% (n = 48).

Table 1

**Table 1**

Demographic Characteristics of Respondents (N = 217)

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Variable	Category	Frequency (%)
Gender	Male	125 (57.6%)
	Female	90 (41.5%)
Age	21-30 years	29 (13.4%)
	31-40 years	63 (29.0%)
	41-50 years	89 (41.0%)
	51-60 years	27 (12.4%)
	Above 60 years	5 (2.3%)
Education	Secondary	3 (1.4%)
	Tertiary (Undergraduate)	86 (39.6%)
	Post-Graduate	126 (58.1%)
Employment	Employed	155 (71.4%)
	Self-Employed	48 (22.1%)
	Student/Retired/Other	14 (6.5%)

### **E-Service Usage and ICT Policy Awareness**

A substantial majority of respondents (89.4%, n = 194) confirmed having used at least one Nigerian government e-service platform. The most frequently utilized platforms included NIMC/NIN registration (referenced by over 37 responses), Remita, BuyPower, the CAC registration portal, FRSC services, and passport renewal platforms. With regard to ICT policy awareness, 59.0% (n = 128) of respondents indicated

awareness of Nigeria's key e-governance policy frameworks, including the NDEPS and the Ne-GIF, while 41.0% (n = 87) were unaware of these policies. When asked whether ICT policies had increased access to e-government services, 65.0% (n = 141) responded affirmatively, 29.5% (n = 64) were unsure, and only 4.1% (n = 9) responded negatively.

### **Descriptive Statistics of Efficiency and Satisfaction Indicators**

Table 2 presents the descriptive statistics for the nine ICT policy efficiency items and six citizen satisfaction items. For the efficiency dimension, the highest mean score was observed for the item measuring ICT policy improvement of timeliness (M = 3.67, SD = 0.88), followed by the item on e-services reducing the need to visit physical offices (M = 3.60, SD = 1.52) and digital platforms helping to reduce bribery and middlemen (M = 3.57, SD = 1.20). The lowest mean score was recorded for platform stability (M = 2.70, SD = 1.01), reflecting widespread concerns about system reliability. The composite efficiency mean was M = 3.35, SD = 0.59.

For the satisfaction dimension, the highest means were for the items "I believe government e-services will continue to improve" (M = 3.94, SD = 0.88) and "I would recommend e-services to others" (M = 3.85, SD = 0.79). The lowest satisfaction mean was for the item "I am satisfied with my experience using government digital platforms" (M = 3.34, SD = 0.89). The composite satisfaction mean was M = 3.55, SD = 0.52.

Table 2

#### **Table 2**

Descriptive Statistics for Efficiency and Satisfaction Items

*Descriptive Statistics for Efficiency and Satisfaction Items*

<b>Item</b>	<b>M</b>	<b>SD</b>
ICT Efficiency Dimension		
ICT policies have made government more transparent and efficient	3.36	1.00
ICT policies have improved the timeliness of government service delivery	3.67	0.88
Online services are faster than traditional/manual processes	3.51	1.51
E-services reduce the need to visit physical offices	3.60	1.52
The platforms are stable and rarely crash	2.70	1.01
I can complete government transactions online without assistance	3.44	1.10
Complaints/inquiries via digital platforms are resolved timely	2.88	1.06
Digital platforms help reduce bribery and middlemen	3.57	1.20

Overall, I find government e-services efficient	3.45	0.91
Composite Efficiency Score	3.35	0.59
Citizen Satisfaction Dimension		
I am satisfied with my experience using government digital platforms	3.34	0.89
I trust the security of information I submit online	3.30	0.90
I believe the documents generated are legitimate and reliable	3.53	0.88
The interfaces of government websites are user-friendly	3.32	0.93
I would recommend e-services to others	3.85	0.79
I believe government e-services will continue to improve	3.94	0.88
Composite Satisfaction Score	3.55	0.52

### ICT Efficiency Dimension

### Citizen Satisfaction Dimension

### Hypothesis Testing

The first null hypothesis (H01) stated that the implementation of ICT policies has no significant impact on the efficiency and timeliness of e-government services in Abuja. A one-sample t-test was conducted comparing the composite efficiency score against the neutral scale midpoint of 3.0 (representing neither agreement nor disagreement). Results revealed that the mean composite efficiency score ( $M = 3.35$ ,  $SD = 0.59$ ) was significantly higher than the neutral midpoint ( $t(216) = 8.748$ ,  $p < .001$ ). This indicates that respondents perceived ICT policy implementation to have a positive and statistically significant impact on the efficiency of e-government services in Abuja. H01 is therefore rejected. Table 3 presents the hypothesis test results.

Table 3

**Table 3**

One-Sample t-Test Results for Hypothesis Testing (Test Value = 3.0)

*One-Sample t-Test Results for Hypothesis Testing (Test Value = 3.0)*

Hypothesis	M	t	p	Decision
H01: ICT policy impact on efficiency	3.35	8.748	< .001	Reject H0
H02: ICT policy and citizen satisfaction	3.55	15.376	< .001	Reject H0

The second null hypothesis (H02) stated that there is no significant relationship between the



implementation of ICT policies and citizen satisfaction with e-government services in Abuja. The one-sample t-test yielded a mean composite satisfaction score of  $M = 3.55$  ( $SD = 0.52$ ), which was significantly above the neutral midpoint of 3.0 ( $t(216) = 15.376$ ,  $p < .001$ ).  $H_02$  is therefore rejected. Citizens in Abuja demonstrate statistically significant positive satisfaction with e-government services as influenced by ICT policy implementation. Additionally, a Pearson product-moment correlation was computed between composite efficiency scores and composite satisfaction scores. Results revealed a moderate, positive, and statistically significant relationship ( $r = 0.312$ ,  $p < .001$ ,  $n = 214$ ), further supporting the rejection of  $H_02$  and confirming that perceived e-service efficiency, driven by ICT policy, is positively associated with citizen satisfaction. The Spearman rank-order correlation ( $\rho = 0.285$ ,  $p < .001$ ) confirmed the robustness of this relationship.

### **Systemic Barriers to E-Service Delivery**

Respondents identified several structural and systemic barriers to effective e-service delivery. Corruption was the most frequently cited challenge (34 of 109 unique responses), followed by inadequate infrastructure (24 responses), weak policy enforcement (18 responses), and insufficient staff capacity (10 responses). These qualitative insights complement the quantitative findings by illuminating why some efficiency indicators, particularly platform stability ( $M = 2.70$ ) and timely complaint resolution ( $M = 2.88$ ), scored below the neutral midpoint despite an overall positive efficiency composite. Respondents' suggestions for improvement centered on increased public awareness and sensitization (cited by approximately 12% of respondents), enhanced digital literacy programs, improved infrastructure, and greater transparency in e-service delivery.

### **Discussion**

The results of this study offer several important insights into the dynamics of ICT policy implementation and e-government service delivery in Abuja, Nigeria. The rejection of both null hypotheses provides empirical evidence that ICT policies have exerted a measurable positive influence on both the efficiency of e-government services and citizen satisfaction in the FCT-findings that carry significant theoretical and practical implications.

The finding that ICT policy implementation significantly influences e-service efficiency ( $t = 8.748$ ,  $p < .001$ ) aligns with the theoretical assertions of both TAM (Davis, 1989) and UTAUT (Venkatesh et al., 2003). Policies that enable more accessible, user-friendly, and reliable digital platforms enhance perceived usefulness and perceived ease of use, thereby increasing citizen engagement with e-government systems. The relatively high means for items such as "ICT policies have improved timeliness of service delivery" ( $M = 3.67$ ) and "e-services reduce the need to visit physical offices" ( $M = 3.60$ ) suggest that citizens in Abuja recognize genuine efficiency gains attributable to ICT-driven reforms. This is consistent with Adekunle and Taiwo (2023), who found measurable service delivery improvements following targeted policy enforcement for NIMC's NIN digitization program.

The moderately strong positive correlation between e-service efficiency and citizen satisfaction ( $r = 0.312$ ,  $p < .001$ ) also aligns with prior literature. Ndou (2004) and Alotaibi and Mutulas (2016) similarly found that perceptions of service quality and efficiency were the strongest predictors of e-government satisfaction in developing-country contexts. The relatively high satisfaction scores for future-oriented items-such as trust in e-service improvement ( $M = 3.94$ ) and willingness to recommend e-services to others ( $M = 3.85$ )-suggest that Abuja residents hold generally optimistic expectations regarding the trajectory of Nigeria's digital governance reform, even while noting current shortcomings.

However, the data also reveal important tensions. The notably low mean for platform stability ( $M = 2.70$ ) reflects widespread dissatisfaction with the reliability of government digital platforms, a finding consistent with Adeleye et al. (2025) and Oladimeji and Abdulkareem (2023), who identified infrastructure deficiencies as a key limitation of Nigeria's e-government rollout. Similarly, the low mean for timely resolution of digital complaints ( $M = 2.88$ ) highlights a persistent gap between policy intent and implementation in the area of government responsiveness. The identification of corruption as the most commonly reported systemic barrier (by approximately 31% of respondents citing systemic issues) reinforces Bwalya's (2009) argument that governance quality, particularly anti-corruption enforcement, is a prerequisite for ICT policy to yield tangible service delivery improvements.

The finding that 41.0% of respondents were unaware of Nigeria's key ICT policy frameworks (NDEPS, Ne-GIF, SRAP 2.0) is notable. Awareness of these policies was positively associated with perceptions of their impact, suggesting that policy communication and civic education are essential components of effective policy implementation. This gap underscores the need for government to supplement policy enactment with robust public communication strategies.

## **Conclusion and Recommendations**

This study set out to examine the impact of ICT policy implementation on e-government service efficiency and citizen satisfaction in Abuja, Nigeria. Based on survey data from 217 respondents and rigorous statistical analysis, the study concludes that ICT policy implementation in Nigeria has had a statistically significant positive impact on the efficiency of e-government services delivered to citizens in Abuja, and that a significant, positive relationship exists between ICT policy-driven service efficiency and citizen satisfaction. Both null hypotheses are rejected.

These findings affirm that the policy frameworks Nigeria has developed-including the NDEPS, SRAP 2.0, and Ne-GIF-are beginning to yield measurable outcomes. However, the presence of persistent barriers, including infrastructural deficits, corruption, weak policy enforcement, and low policy awareness, underscores the substantial distance between current performance and the ambitions articulated in these frameworks.

Based on the findings, the following recommendations are offered:

First, the Nigerian government and the FCT Administration should strengthen the enforcement mechanisms



of existing ICT policies, with particular emphasis on anti-corruption measures within e-service delivery chains. Policy frameworks that are not actively enforced will continue to yield limited returns.

Second, significant investment is required in the digital infrastructure underpinning government e-service platforms. The low stability scores ( $M = 2.70$ ) indicate that frequent system crashes and outages are eroding public confidence in e-government services. Investment in resilient cloud infrastructure, backup systems, and regular platform maintenance is essential.

Third, a comprehensive public awareness and digital literacy campaign should be prioritized. With 41.0% of respondents unaware of the ICT policy frameworks shaping e-government, the government's communication strategy requires significant enhancement. Targeted awareness campaigns, delivered through community radio, social media, and civic institutions, can address this deficit.

Fourth, government should establish clear, monitored service level agreements for the resolution of citizen complaints submitted via digital platforms. The low mean score for complaint resolution timeliness ( $M = 2.88$ ) represents one of the most actionable areas for improvement and directly impacts citizen satisfaction.

Fifth, future research should expand this investigation to other Nigerian states and explore longitudinal dimensions of ICT policy impact. A mixed-methods design incorporating qualitative case studies of specific e-service programs would further enrich understanding of the mechanisms through which policy implementation shapes service outcomes.

## References

Adeleye, D. A., Ahlan, A. R., Ibrahim, N. M., & Ahmed, M. (2025). Impact and challenges of e-government implementation in Nigeria: A systematic literature review. *International Journal on Perceptive and Cognitive Computing*, 11(2), 42-57. <https://doi.org/10.31436/ijpcc.v11i2.567>

*International Journal on Perceptive and Cognitive Computing*, 11

Alotaibi, S. J., & Mutulas, S. (2016). Using e-government services in developing countries: A citizen satisfaction perspective. *Journal of Information Science*, 42(1), 123-140.

<https://doi.org/10.1177/0165551515581944>

*Journal of Information Science*, 42

Bwalya, K. J. (2009). Factors affecting adoption of e-government in Zambia. *Electronic Journal of Information Systems in Developing Countries*, 38(4), 1-13.

<https://doi.org/10.1002/j.1681-4835.2009.tb00267.x>

*Electronic Journal of Information Systems in Developing Countries*, 38

Chukwuma, I. (2017). The challenge of policy implementation in Nigeria: Governance, reform, and public sector performance. Lagos: CLEEN Foundation.

*The challenge of policy implementation in Nigeria: Governance, reform, and public sector performance.*



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>

*MIS Quarterly*, 13

Eke, D. O. (2018). Corruption and the challenges of e-governance in Nigeria. *International Journal of Public Administration and Management Research*, 4(3), 35-43.

*International Journal of Public Administration and Management Research*, 4

Isah, G., Orugun, J. J., & Garba, S. J. (2024). Technological innovation and the performance of the National Identity Management Commission in Nigeria. *ASRIC Journal on Social Sciences and Humanities*, 5(2), 134-145.

*ASRIC Journal on Social Sciences and Humanities*, 5

Musa, A. B. (2020). Corruption and e-government implementation in Nigeria: A literature review. *International Journal of E-Government Research*, 16(2), 45-60. <https://doi.org/10.4018/IJEGR.2020040103>

*International Journal of E-Government Research*, 16

Ndou, V. (2004). E-government for developing countries: Opportunities and challenges. *Electronic Journal of Information Systems in Developing Countries*, 18(1), 1-24.

<https://doi.org/10.1002/j.1681-4835.2004.tb00117.x>

*Electronic Journal of Information Systems in Developing Countries*, 18

Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). McGraw-Hill.

*Psychometric theory*

Nwosu, H. E., Obasi, P. C., & Lub, P. A. (2021). E-government and public service delivery in Nigeria: Issues, challenges, and prospects. *Public Administration Research*, 10(1), 44-55.

<https://doi.org/10.5539/par.v10n1p44>

*Public Administration Research*, 10

Oladimeji, K. A., & Abdulkareem, A. K. (2023). An assessment of user satisfaction with e-police in Nigeria. *RUDN Journal of Public Administration*, 10(1), 130-143.

<https://doi.org/10.22363/2312-8313-2023-10-1-130-143>

*RUDN Journal of Public Administration*, 10

Olukoshi, A. (2014). *The politics of policy reform in Nigeria: Challenges of implementation and governance*. Nordic Africa Institute.

*The politics of policy reform in Nigeria: Challenges of implementation and governance*.

Oni, A. A., Ayo, C. K., & Mbarika, V. (2016). E-government implementation in Nigeria: An empirical study of challenges and adoption in the Federal Capital Territory (Abuja). *Journal of Systems and Information Technology*, 18(2), 189-204.



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*Journal of Systems and Information Technology, 18*

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-40.

*Journal of Retailing, 64*

Scholl, H. J. (2020). *The digital era government reference model*. Springer.

<https://doi.org/10.1007/978-3-030-48525-1>

*The digital era government reference model*.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478. <https://doi.org/10.2307/30036540>

*MIS Quarterly, 27*

Adeleye, D. A., Ahlan, A. R., Ibrahim, N. M., & Ahmed, M. (2025). Impact and challenges of e-government implementation in Nigeria: A systematic literature review. *International Journal on Perceptive and Cognitive Computing*, 11(2), 42-57. <https://doi.org/10.31436/ijpcc.v11i2.567>

*International Journal on Perceptive and Cognitive Computing, 11*

Isah, G., Orugun, J. J., & Garba, S. J. (2024). Technological innovation and the performance of the National Identity Management Commission in Nigeria. *ASRIC Journal on Social Sciences and Humanities*, 5(2), 134-145.

*ASRIC Journal on Social Sciences and Humanities, 5*

Latupeirissa, et al. (2024). Transforming public service delivery: A comprehensive review of digitization initiatives. *Sustainability*, 16(7), 2818. <https://doi.org/10.3390/su16072818>

*Sustainability, 16*

Oladimeji, K. A., & Abdulkareem, A. K. (2023). An assessment of user satisfaction with e-police in Nigeria. *RUDN Journal of Public Administration*, 10(1), 130-143.

<https://doi.org/10.22363/2312-8313-2023-10-1-130-143>

*RUDN Journal of Public Administration, 10*

Scholl, H. J. (2020). *The digital era government reference model*. Springer.

<https://doi.org/10.1007/978-3-030-48525-1>

*The digital era government reference model*.