



(REVIEW ARTICLE)



FROM DIGITIZATION TO PERFORMANCE: TECHNOLOGY ADOPTION IN THE PUBLIC SERVICE AND THE ROLE OF KENYA'S ECITIZEN PLATFORM AS AN ENABLER

Emmanuel Mokoro ^{1,*} and Peter Kimaile ²

¹Kenya National Strategic Research Institute (KeNSRI).

² Directorate of eCitizen Services

* Corresponding Author

ORCID Details

Emmanuel Mokoro: <https://orcid.org/0009-0001-4580-960X>

Peter Kimaile: <https://orcid.org/0009-0002-0817-8148>

World Journal of Advanced Research and Reviews, 2026, 31(02), 1554–1565

Publication history: Received on 14 July 2026; revised on 26 August 2026; accepted on 28 August 2026

Article DOI: <https://doi.org/10.30574/wjarr.2026.31.2.2239>

Copyright © 2026 Author(s) retain the copyright of this article. This article is published under the terms of the Creative Commons Attribution License 4.0

ABSTRACT

The digital transformation of government has become an increasingly important instrument for improving public-sector performance, administrative efficiency, accountability, accessibility, and citizen-centered service delivery. In Kenya, the eCitizen platform represents one of the most consequential manifestations of this transformation, providing a common digital gateway through which citizens, businesses, and other users can access and pay for a growing range of public services. This article critically examines the adoption of digital technology in Kenya's public service, using eCitizen as a case through which to analyze the relationship between technology adoption and public-sector performance. Drawing on the Technology Acceptance Model (TAM), the Unified Theory of Acceptance and Use of Technology (UTAUT), the DeLone and McLean Information Systems Success Model, and public-value and digital-government scholarship, the article develops an integrated analytical framework for understanding how digital platforms translate technological investment into measurable administrative and public value. The article adopts a qualitative, conceptual, and policy-analytical methodology grounded in a systematic examination of peer-reviewed literature, official Kenyan policy documents, legislation, and contemporary institutional evidence on eCitizen and digital government. The analysis suggests that technology adoption should not be equated with digitization alone. Rather, performance gains emerge when digital technologies are accompanied by institutional redesign, interoperable systems, capable human resources, effective governance, data protection, cybersecurity, user-centered service design, and mechanisms for digital inclusion. Kenya's eCitizen experience demonstrates considerable potential for reducing transaction costs, improving payment traceability, increasing convenience, supporting revenue administration, and creating a more integrated interface between citizens and government. At the same time, persistent barriers—including unequal digital access, connectivity limitations, digital-literacy gaps, system reliability, institutional fragmentation, privacy concerns, and the risk of excluding citizens who cannot effectively use digital channels—may constrain the realization of public value. The article argues that the next phase of Kenya's digital transformation should move beyond a "services-online" paradigm towards a performance-oriented, citizen-centered, and digitally integrated public administration, and it proposes a continuum of policy interventions spanning infrastructure and access, institutional

governance, interoperability, workforce capability, service redesign, cybersecurity, data protection, inclusion, performance measurement, public accountability, and adaptive regulation. The article concludes that eCitizen can become a genuine performance enabler only when it is treated not merely as an information-technology platform but as institutional infrastructure for public-sector transformation.

Keywords: E-Government; Digital Transformation; Ecitizen; Public-Sector Performance; Technology Adoption; Public Service Delivery; Kenya; Digital Government; Public Value; Digital Inclusion

1 INTRODUCTION

Digital technology has fundamentally altered the relationship between governments, public institutions, and citizens. The emergence of digital government has transformed information provision, administrative transactions, payments, licensing, registration, taxation, identity management, and access to public services. Citizens increasingly expect public institutions to deliver services with the same convenience, speed, transparency, and responsiveness associated with well-designed private-sector digital platforms. Consequently, governments no longer regard information and communication technologies (ICTs) merely as administrative support tools; digital technologies are increasingly treated as strategic instruments for institutional reform, public-sector productivity, and the creation of public value.

The significance of this transformation is particularly pronounced in developing countries, where public institutions frequently operate under constraints associated with limited financial resources, geographical dispersion, bureaucratic complexity, information asymmetry, inadequate infrastructure, and high transaction costs. Digital technologies potentially provide mechanisms for overcoming some of these constraints. However, technology does not automatically generate improved institutional performance; the benefits of digital government depend on the interaction between technology, people, institutions, organizational processes, laws, and the wider socioeconomic environment.

The distinction between digitization and digital transformation is therefore fundamental. Digitization involves converting information or transactions from analogue to digital formats. Digital transformation is considerably broader: it involves redesigning organizational processes, institutional relationships, decision-making arrangements, and service-delivery models around digital capabilities. The OECD's *Digital Government Policy Framework* similarly emphasizes that digital government requires more than technology acquisition; it requires digital-by-design approaches, data-driven government, government-as-a-platform capabilities, openness, user-driven design, and proactive services (OECD, 2020).

Kenya provides a particularly important case for examining this transition based on its continental rating index. Over the past decade, the country has pursued an increasingly ambitious digital-government agenda, extending from earlier e-government initiatives towards integrated digital public services. The current political government has set the digital super highway as a strategic pillar in its national policy implantation. Kenya's national ICT policy architecture has consistently identified ICT as an instrument for productivity, efficiency, effectiveness, and governance, and the *Kenya National Digital Master Plan 2022–2032* has strengthened the policy emphasis on integrated digital services and government digital-service delivery (Government of Kenya, 2022). The government continues to identify digital transformation as a central component of the country's medium-term development strategy (Government of Kenya, 2026).

Within this broader transformation, eCitizen has emerged as a central platform. The eCitizen Directorate describes the platform as a unified gateway for accessing government services and identifies convenience, efficiency, transparency, accountability, and citizen-centered service delivery among its principal objectives (Government of Kenya, State Department for Immigration and Citizen Services, n.d.). The National Treasury similarly identifies the digitization of government payments as a means of improving revenue collection, reducing collection costs, and enhancing service delivery (Government of Kenya, National Treasury, n.d.).

The scale of this transformation is substantial. Official reporting indicates that the number of digitized government services increased from approximately 350 in 2022 to 20,985 in 2025, with services increasingly integrated with eCitizen and mobile platforms, while registered users grew from 13.2 million to 13.5 million during the 2024/2025 financial year, alongside substantial daily platform traffic (Government of Kenya, State Department for Immigration and Citizen Services, 2025). These developments demonstrate that eCitizen is no longer a marginal ICT initiative; it has become part of the core infrastructure through which the Kenyan state interacts with citizens.

The central question, however, is not simply whether Kenyans are using eCitizen. The more important public-administration question is whether technology adoption is producing measurable improvements in public-sector performance. A platform can have millions of users and thousands of services while still failing to transform underlying administrative processes. Conversely, a well-integrated digital platform can reduce transaction costs, improve data

quality, enhance traceability, reduce opportunities for rent-seeking, and enable government agencies to make more timely decisions.

Recent evidence illustrates both dimensions. Kemboi and Premanandam (2026), examining e-governance and Huduma services in the context of Kenya's 2025 public-sector reforms, found generally positive perceptions of digital government alongside persistent problems such as long waiting times, system downtime, poor connectivity, and unequal access. Ngeywo and Ghabon (2026) similarly evaluate the impact of e-government platforms on service delivery in Kenya and associate digital-service performance with institutional and infrastructural conditions, while Wandabwa (2025) links e-government adoption to organizational performance outcomes in the Kenyan public service. Other recent Kenyan research associates digital competencies among frontline personnel with public-service delivery effectiveness, underscoring the importance of human capacity and institutional conditions alongside technology itself.

This article therefore advances a central argument: eCitizen should be understood as a potential performance-enabling institutional infrastructure rather than simply an online service portal. Its performance effects depend on the quality of technology adoption, organizational readiness, service redesign, digital capability, interoperability, institutional coordination, user acceptance, data governance, and inclusion.

The article makes four principal contributions. First, it synthesizes technology-adoption theory with public-administration and digital-government perspectives to develop a more comprehensive explanation of eCitizen's potential performance effects. Second, it distinguishes technological adoption from genuine digital transformation. Third, it identifies the principal institutional and socioeconomic conditions that may enable or constrain eCitizen's performance effects. Fourth, it develops a continuum of policy recommendations for strengthening Kenya's digital public-service ecosystem.

2 CONCEPTUALIZING TECHNOLOGY ADOPTION IN THE PUBLIC SERVICE

Technology adoption in public administration is considerably more complex than individual consumer adoption. In the private sector, adoption may be evaluated principally through intention to use, actual usage, satisfaction, and commercial outcomes. In government, however, the relevant outcomes extend to administrative efficiency, equity, transparency, accountability, accessibility, responsiveness, trust, and public value.

Davis's (1989) Technology Acceptance Model provides an important starting point. TAM proposes that perceived usefulness and perceived ease of use are central determinants of technology acceptance. In the context of eCitizen, perceived usefulness refers to the extent to which citizens and public officials believe the platform enables faster, cheaper, more convenient, and more reliable access to government services, while perceived ease of use concerns whether users can navigate the platform, understand requirements, complete transactions, and obtain assistance when problems occur.

UTAUT expands the analysis by incorporating performance expectancy, effort expectancy, social influence, and facilitating conditions as major determinants of technology use. Venkatesh et al. (2003) demonstrate that UTAUT can explain substantial variation in technology adoption and emphasize the importance of organizational and contextual conditions surrounding technology use.

For public-sector digital transformation, however, individual acceptance is insufficient. A citizen may find eCitizen useful, yet the public agency responsible for the underlying service may still operate fragmented databases, manual back-office procedures, or inadequate staff capacity. Technology adoption must therefore be analyzed at three interconnected levels:

- **Individual level:** whether citizens and public officials accept and use the technology.
- **Organizational level:** whether public institutions redesign processes and develop the capabilities necessary to exploit the technology.
- **Institutional/system level:** whether laws, policies, infrastructure, interoperability arrangements, and governance mechanisms support sustained digital transformation.

This multi-level approach is essential because public-sector performance is generated by systems rather than by technology alone.

3 LITERATURE REVIEW

3.1 E-Government and Public-Sector Performance

The literature on e-government generally associates digitalization with improvements in service accessibility, administrative efficiency, transparency, and responsiveness. Nevertheless, the relationship is neither automatic nor linear. The DeLone and McLean Information Systems Success Model provides a useful framework for evaluating digital government because it distinguishes system quality, information quality, service quality, use, user satisfaction, and net benefits (DeLone & McLean, 2003). Applied to eCitizen, system quality encompasses reliability, availability, security, usability, and speed; information quality concerns the accuracy, completeness, and timeliness of information provided to users; and service quality concerns the support and assistance available when users encounter difficulties. These factors influence use and satisfaction, which ultimately influence organizational and societal benefits.

This perspective is particularly relevant to Kenya because a technically sophisticated platform does not necessarily produce a high-quality public service. If citizens must repeatedly provide information already held by another government agency, the system may be digital while the underlying process remains bureaucratic. Similarly, if a citizen completes an online application but must subsequently make multiple physical visits to government offices, digitalization has not eliminated the underlying transaction costs. Consequently, digital government should be evaluated in terms of *end-to-end service transformation*, rather than simply the number of services uploaded to an online portal.

3.2 Public Value and Digital Government

Public-value theory provides another important analytical lens. Twizeyimana and Andersson (2019), in their systematic review of the public value of e-government, demonstrate that digital government can generate multiple forms of value, including improved public services, administrative efficiency, social value, transparency, participation, and trust. This perspective changes the guiding question from "How many government services are online?" to "What value does digital government create for citizens and society?"

For Kenya, the potential public value generated by eCitizen includes reduced time and financial costs associated with accessing public services; greater convenience and geographical accessibility; improved payment traceability; reduced opportunities for petty corruption; improved government revenue administration; better information management; greater administrative transparency; improved institutional coordination; and enhanced citizen experience. However, public value can also be undermined when digitalization creates new forms of exclusion. A person without reliable internet access, digital skills, an appropriate device, or sufficient financial resources may experience a digital service not as empowerment but as a new administrative barrier.

3.3 Digital Government as Institutional Transformation

The OECD's digital-government literature argues that successful transformation requires governments to move beyond isolated digital projects towards integrated institutional arrangements, in which interoperability, common standards, cross-government coordination, and digital-by-design processes are particularly important (OECD, 2020). The *Digital Government Outlook 2026* further emphasizes that digital maturity does not automatically translate into government performance; structural constraints such as fragmented institutional responsibilities, outdated processes, rigid rules, and weak coordination can prevent governments from translating technology investment into responsiveness and adaptability (OECD, 2026).

This insight is especially important for Kenya. eCitizen aggregates services from numerous ministries, departments, agencies, and county-related institutions, so the performance of the platform is partly dependent on institutional cooperation that extends well beyond the platform itself.

3.4 Technology Adoption and Public Employees

Much of the technology-adoption literature focuses on end users or consumers. Public-sector transformation, however, requires employees to change how work is performed. Public employees may perceive digitalization as an opportunity for efficiency and professionalization, but they may equally perceive it as a threat to established routines, authority, job security, or organizational autonomy. Technology implementation therefore requires deliberate change management, training, leadership, and incentives. Recent Kenyan research on digital competencies among Huduma Centre personnel supports this argument by examining the relationship between digital competencies and service-delivery effectiveness. Technology therefore creates performance benefits only when employees possess the competencies required to use it and when organizational structures enable them to redesign work around digital capabilities.

3.5 The Kenyan E-Government Context

Kenya's e-government development has evolved from multiple sectoral platforms and programs towards increasing integration. Earlier systems such as iTax, IFMIS, and Huduma created important sector-specific capabilities, and eCitizen represents a further stage in this evolution by seeking to provide a common interface and payment environment. The National Treasury identifies eCitizen as part of the government's effort to digitize payments, increase revenue collection, minimize collection costs, and improve service delivery (Government of Kenya, National Treasury, n.d.), while the current policy environment explicitly links digital transformation to efficient service delivery, cybersecurity, data privacy, and implementation of the *Kenya National Digital Master Plan 2022–2032* (Government of Kenya, 2022). The policy trajectory therefore suggests a movement from isolated e-government applications towards an integrated digital-government ecosystem.

4 THEORETICAL FRAMEWORK

This article proposes an integrated framework combining four theoretical perspectives.

4.1 Technology Acceptance Model

TAM explains why individuals accept or reject technology: perceived usefulness and perceived ease of use influence attitudes and behavioral intention, and ultimately technology use (Davis, 1989). For eCitizen, this can be expressed as two related pathways: perceived usefulness leading to intention to use, actual use, and service outcomes; and perceived ease of use leading to perceived usefulness, intention to use, and actual use.

4.2 Unified Theory of Acceptance and Use of Technology

UTAUT adds performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh et al., 2003). This is particularly relevant because citizens cannot use eCitizen effectively when connectivity, devices, digital skills, or support services are unavailable.

4.3 DeLone and McLean Information Systems Success Model

The DeLone and McLean model provides the performance dimension of the framework. System quality, information quality, and service quality influence use and satisfaction, which in turn contribute to net benefits (DeLone & McLean, 2003).

4.4 Public-Value Perspective

The public-value perspective ensures that the analysis does not reduce government performance to efficiency alone. A successful digital public service should generate value in terms of accessibility, fairness, transparency, responsiveness, accountability, and citizen welfare (Twizeyimana & Andersson, 2019).

4.5 Integrated Analytical Model

The four perspectives can be integrated into a single conceptual sequence, moving from digital infrastructure, institutional capacity, and user capability, through perceived usefulness, ease of use, and facilitating conditions, to technology acceptance and sustained utilization, service-process transformation, efficiency, accessibility, transparency and responsiveness, administrative performance, and ultimately public value, citizen trust, and institutional legitimacy. The model also contains feedback loops: poor system quality can reduce trust and usage; low usage can weaken institutional incentives for further investment; exclusion can generate political resistance; and successful experiences can increase trust and encourage broader adoption.

5 METHODOLOGY

5.1 Research Design

The article adopts a qualitative, conceptual, and policy-analytical research design. This approach is appropriate because the objective is to synthesize established theories of technology adoption with the institutional and policy realities of Kenyan digital government. Rather than presenting primary survey or experimental data, the article draws on three categories of evidence: peer-reviewed scholarly literature on technology adoption, digital government, and public-sector performance; official Kenyan government policies, institutional reports, and legislation; and recent empirical research concerning e-government, eCitizen, Huduma, and public-service delivery in Kenya. This approach permits theoretical integration and policy analysis while maintaining methodological transparency regarding the article's conceptual, rather than statistical, character.

5.2 Documentary Analysis

Official policy and institutional documents were examined to establish the evolution, objectives, and governance arrangements of Kenya's digital-government agenda, including material relating to the *Kenya National Digital Master Plan*, eCitizen, government digital-service delivery, and public-sector performance. The eCitizen Directorate identifies integration of services from ministries, departments, and county agencies, platform security, service digitization, and citizen-centric delivery among its core responsibilities (Government of Kenya, State Department for Immigration and Citizen Services, n.d.). The analysis also incorporates the *Data Protection Act, 2019*, which establishes principles governing personal-data processing and requires appropriate technical and organizational safeguards, including data protection by design and by default (Government of Kenya, 2019).

5.3 Scholarly Literature Review

The literature review integrates foundational technology-adoption scholarship with contemporary digital-government studies, with particular emphasis on TAM, UTAUT, the DeLone and McLean model, public-value theory, and digital-government governance. Recent Kenyan evidence is used to contextualize the theoretical discussion; for example, Kemboi and Premanandam (2026) identify high awareness and usage of Kenyan digital-government services while also documenting problems related to waiting times, downtime, connectivity, and digital inclusion.

5.4 Analytical Strategy

The documents and literature were analyzed thematically around six analytical dimensions: technology acceptance; institutional capacity; service-process transformation; digital inclusion; governance, privacy, and cybersecurity; and public-sector performance. The resulting synthesis was used to develop the performance framework and policy recommendations presented in Sections 7 and 8.

6 ANALYSIS AND DISCUSSION

6.1 eCitizen as a Performance Enabler

The principal contribution of eCitizen to public-sector performance lies in its capacity to reduce transaction costs and create a common interface between citizens and government. Traditional public-service delivery often requires citizens to identify the responsible institution, travel to government offices, queue, complete paper forms, make payments, and return to collect documents. Digital platforms can collapse many of these steps into a single transaction, expressed as a simple performance mechanism: digital access leads to reduced transaction costs, which leads to faster processing, an improved service experience, and, ultimately, higher administrative efficiency. However, this mechanism operates only when the underlying administrative process has itself been redesigned. A digital front end attached to a manual back office may produce only superficial transformation. The critical performance question is therefore not the availability of online services but the extent to which the entire service chain has been digitalized.

6.2 Revenue Collection and Financial Performance

Digital payment infrastructure can strengthen public financial management by improving traceability and reducing reliance on cash transactions. The National Treasury identifies eCitizen's payment function as a mechanism for increasing revenue collection, reducing collection costs, and improving service delivery (Government of Kenya, National Treasury, n.d.). From a public-management perspective, the benefits include improved payment traceability, reduction of cash-handling risks, more timely reconciliation, improved revenue information, reduced opportunities for diversion, lower transaction costs, and improved convenience for users. Digital payment therefore represents more than a technical improvement; it can alter the institutional incentive structure surrounding revenue collection.

6.3 Transparency and Corruption Reduction

One of the frequently cited benefits of e-government is its potential to reduce corruption by decreasing discretionary face-to-face interactions. The underlying logic is straightforward: when a transaction is initiated, paid for, and tracked digitally, the number of points at which an official may demand an informal payment can decline. However, digitalization should not be presented as a universal anti-corruption solution, since corruption may migrate from physical processes to digital procurement, data manipulation, cyber fraud, or manipulation of administrative databases. Anti-corruption benefits therefore depend on auditability, segregation of duties, data analytics, independent oversight, and transparent institutional procedures.

6.4 Citizen Convenience and Service Quality

The most visible benefit of eCitizen is convenience: citizens can potentially access services outside conventional government-office hours and without travelling to administrative offices. This contributes to service quality through

accessibility, timeliness, reduced queues, reduced travel costs, standardized procedures, electronic payment, and transaction tracking. Yet convenience depends heavily on usability and reliability, and a platform that is frequently unavailable, difficult to navigate, or poorly supported may increase rather than reduce frustration. Recent Kenyan evidence identifies system downtime and connectivity as significant user concerns (Kemboi & Premanandam, 2026). Reliability is therefore itself a dimension of public-service performance.

6.5 Institutional Integration

eCitizen has the potential to overcome institutional fragmentation by providing a common interface for services across government, consistent with the "government as a platform" concept in digital-government scholarship (OECD, 2020). The major challenge, however, is interoperability, since government agencies frequently operate different databases, software systems, standards, and institutional procedures. Without interoperability, a unified portal can conceal rather than resolve institutional fragmentation. The next stage of eCitizen therefore requires interoperability at the back-office level, including common data standards, secure application programming interfaces (APIs), shared digital-identity infrastructure, interoperable payment systems, master-data management, common authentication, shared cybersecurity standards, and clear institutional responsibility for data stewardship.

6.6 Human Capacity and Organizational Change

Technology adoption is ultimately implemented by people. Public employees must understand new systems, redesign workflows, respond to users, and manage new forms of data, which requires sustained investment in digital literacy, data literacy, cybersecurity awareness, service-design skills, change management, leadership capability, digital ethics, and analytical capacity. Failure to develop these capabilities may result in what this article terms "digital bureaucracy": systems become more technologically sophisticated while organizational behavior remains unchanged.

6.7 Digital Inclusion

Digital transformation creates a paradox: it can make government more accessible to digitally connected citizens while simultaneously making it less accessible to citizens who lack digital resources. Digital exclusion can result from inadequate broadband, high data costs, lack of smartphones or computers, low digital literacy, disability, language barriers, age, geographical isolation, and limited access to digital identity or payment mechanisms. Recent Kenyan research explicitly identifies digital literacy and rural access as continuing priorities (Kemboi & Premanandam, 2026). Consequently, the policy objective should not be "digital-only government" but *digital-first, inclusion-preserving government*, in which digital channels become the preferred mechanism where appropriate while assisted-digital alternatives remain available for citizens who need them.

6.8 Data Protection, Privacy, and Trust

As government becomes increasingly data-driven, citizen trust becomes a strategic performance variable. The *Data Protection Act, 2019* establishes a legal framework for personal-data protection and requires data controllers and processors to implement appropriate technical and organizational measures, expressly recognizing data protection by design and by default (Government of Kenya, 2019). A trusted platform should demonstrate lawful data processing, purpose limitation, data minimization, security, transparency, user rights, accountability, appropriate retention, breach response, and privacy-by-design. The eCitizen Directorate has reported the use of Data Protection Impact Assessments and efforts to strengthen cybersecurity and resilience (Government of Kenya, State Department for Immigration and Citizen Services, n.d.). Nevertheless, privacy cannot be treated solely as a compliance issue; it is a determinant of citizen confidence and sustained technology adoption.

6.9 Cybersecurity and Resilience

The centralization of government services creates efficiency but also concentration risk. A highly integrated platform may become a critical national-infrastructure component, and a prolonged outage or major cyberattack could simultaneously disrupt multiple public services. Consequently, eCitizen's performance should be assessed not only through average service availability but also through resilience indicators such as recovery time, recovery point objectives, redundancy, incident-response capability, penetration testing, identity protection, fraud detection, disaster recovery, and continuity of government services. Digital resilience should therefore become an explicit component of public-sector performance management.

7 A PERFORMANCE FRAMEWORK FOR ECITIZEN

A useful framework for evaluating eCitizen should move beyond counting users and services towards nine analytical dimensions.

- **Dimension 1: Access**
- Percentage of the population able to access services
- Rural/urban access disparities
- Accessibility for persons with disabilities
- Affordability
- Language accessibility
- **Dimension 2: Adoption**
- Registration and active-user rates
- Repeat usage
- Completion rates
- Channel preferences
- **Dimension 3: Service Quality**
- System uptime
- Transaction completion time
- Error rates
- Customer satisfaction
- First-contact resolution
- **Dimension 4: Administrative Efficiency**
- Processing time
- Cost per transaction
- Staff time saved
- Reduction in physical visits and paperwork
- **Dimension 5: Financial Performance**
- Revenue collected
- Reconciliation time
- Cost of collection
- Payment failure rates
- Reduction in leakage
- **Dimension 6: Transparency and Accountability**
- Transaction traceability and auditability
- Complaints resolution
- Corruption-risk reduction
- Publication of service standards
- **Dimension 7: Inclusion**
- Use by vulnerable populations
- Assisted-digital usage #BULLET#Regional and gender disparities
- Disability accessibility
- **Dimension 8: Trust and Security**
- Data breaches and cybersecurity incidents
- Privacy complaints
- User trust
- Compliance with data-protection requirements
- **Dimension 9: Public Value**
- The ultimate indicators should capture whether citizens experience government as more accessible, fair, responsive, transparent, efficient, trustworthy, and accountable.

8 POLICY RECOMMENDATIONS

The policy recommendations are presented as a continuum, since digital transformation is not a single intervention but an evolving institutional process.

8.1 Universal Digital Infrastructure

Kenya should continue expanding broadband infrastructure, particularly in rural and underserved areas, since digital government cannot be inclusive when citizens cannot reliably connect to government platforms. Policy should prioritize

universal broadband, affordable internet, public Wi-Fi, community digital hubs, reliable electricity, rural connectivity, accessible devices, and resilient national digital infrastructure.

8.2 Digital Inclusion

Government should institutionalize an "assisted digital" model through Huduma Centers, community digital centers, trained digital-service agents, libraries and public institutions, mobile-assisted services, and accessible customer-support channels. The objective should be digital inclusion rather than compulsory digitalization.

8.3 Digital Literacy

Digital literacy should become a formal component of public-service policy, with training for both citizens and public servants. Citizen-facing programs should address account creation, digital identity, online payments, cybersecurity, privacy, fraud awareness, and service navigation, while public-employee training should extend beyond basic ICT skills to data analytics, service design, process redesign, cybersecurity, artificial intelligence, digital ethics, and change management.

8.4 Back-Office Transformation

Government should avoid measuring digital transformation exclusively through the number of online services and should instead evaluate every major service end to end. A service should not be considered fully digitized until application, authentication, payment (where applicable), internal processing, inter-agency verification, notification, records management, and completion are all digital and auditable. This would shift Kenya from front-office digitization to genuine process transformation.

8.5 Interoperability

Government should establish enforceable interoperability standards across ministries, departments, agencies, and counties, specifying common data standards, identity protocols, API standards, metadata, authentication, data exchange, cybersecurity, consent management, and audit trails. This would reduce duplication and allow government to operate as an integrated digital institution.

8.6 Digital Identity

A secure and inclusive digital-identity framework should become a foundation for government services, accompanied by privacy safeguards, correction mechanisms, alternative authentication methods, accessibility, cybersecurity, and legal accountability. Digital identity should enable access rather than become an exclusionary prerequisite.

8.7 Data Governance

Kenya should strengthen data governance across the public sector. Every major government digital system should clearly identify who owns, controls, and processes the data; why the data are collected; how long they are retained; who may access them; and how citizens can exercise their rights. Data Protection Impact Assessments should become standard practice for high-risk digital public services.

8.8 Cybersecurity

Government should establish common minimum cybersecurity standards for all systems integrated into eCitizen, including multi-factor authentication, encryption, vulnerability management, independent security testing, incident reporting, disaster recovery, business continuity, privileged-access controls, and fraud monitoring.

8.9 Citizen-Centered Design

Every major eCitizen service should be designed around actual citizen journeys rather than institutional structures, through user research, usability testing, accessibility testing, service-journey mapping, behavioral analysis, and citizen feedback. The guiding question should be what the citizen needs to accomplish, rather than how the responsible agency currently organizes itself.

8.10 Performance-Based Digital Government

Government should establish a national Digital Public Service Performance Index combining efficiency, service quality, accessibility, inclusion, reliability, security, satisfaction, transparency, and financial performance, with agencies evaluated on outcomes rather than merely the number of services digitized.

8.11 Open Government and Accountability

Digital government should be accompanied by greater transparency, including the publication of appropriate aggregate information on service availability, processing times, complaints, system outages, service-level performance, user satisfaction, cybersecurity incidents (where disclosure is appropriate), and revenue performance, enabling citizens and researchers to evaluate whether digital transformation is producing public value.

8.12 Artificial Intelligence and Emerging Technologies

The next stage of eCitizen is likely to involve artificial intelligence, automation, predictive analytics, and intelligent virtual assistance. Kenya should adopt these technologies cautiously and strategically, governed by principles of legality, explainability, human oversight, fairness, accountability, privacy, and non-discrimination, so that automation simplifies administrative work rather than automating unfairness.

8.13 Institutional Governance

Government should clarify institutional roles among the ministry responsible for digital transformation, the ICT Authority, the eCitizen Directorate, the National Treasury, the Office of the Data Protection Commissioner, cybersecurity institutions, ministries, and county governments. The OECD's digital-government framework stresses the importance of strong leadership and coordination because digital transformation cuts across institutional boundaries (OECD, 2020); a whole-of-government governance structure would reduce duplication and strengthen accountability.

8.14 Public-Private Partnerships

Private technology firms can provide innovation and technical capacity, but government should retain strategic control over citizen data, identity, critical infrastructure, standards, procurement, interoperability, and accountability. Public-private partnerships should therefore be governed by strong contractual, cybersecurity, data-protection, and public-interest requirements.

8.15 Continuous Evaluation

Digital transformation should be treated as a continuous learning process. Every major e-government program should include baseline assessment, implementation indicators, outcome indicators, citizen feedback, independent evaluation, and periodic redesign, ensuring that technology investments remain aligned with actual public-service needs.

9 PROPOSED IMPLEMENTATION ROADMAP

A phased approach is recommended. In the short term (0–2 years), priority should be given to service reliability, digital-literacy programs, assisted digital services, cybersecurity, data-protection compliance, usability improvements, and common performance indicators. In the medium term (3–5 years), government should focus on interoperability, back-office automation, national digital-identity integration, shared government platforms, data analytics, workforce transformation, and county-government integration. In the long term (5–10 years), the objective should be a mature digital state characterized by proactive government services, predictive service delivery, secure data exchange, integrated citizen journeys, AI-assisted administration, evidence-based policy, and universal digital inclusion. The long-term trajectory should therefore move from government online, to digital government, to integrated government, to proactive government, and ultimately to intelligent and citizen-centered government.

9.1 Implications for Public Administration Theory

The Kenyan eCitizen experience carries broader theoretical implications for public administration scholarship. First, it demonstrates that technology-adoption theories require contextualization when applied to public administration: individual acceptance is necessary but insufficient, and organizational capability and institutional governance determine whether technology use translates into public-sector performance. Second, the case supports an expanded interpretation of public value, in which efficiency is important but digital government should also be evaluated through equity, transparency, trust, and accountability. Third, the case reinforces the importance of institutional infrastructure: digital platforms become more valuable as more institutions and services are integrated into them, producing network effects but also increasing systemic risk. Fourth, digital transformation changes the nature of administrative capacity itself, as traditional bureaucratic capacity increasingly needs to be complemented by digital, data, cybersecurity, and service-design capabilities.

9.2 Limitations and Directions for Future Research

This article is conceptual and documentary rather than a primary empirical investigation, and it therefore does not claim to estimate statistically the causal effect of eCitizen adoption on public-service performance. Future studies should employ longitudinal and mixed-method designs to investigate whether eCitizen reduces service-processing time;

whether adoption varies by socioeconomic status; whether digitalization reduces corruption; how digital services affect citizen trust; whether digital competencies among public servants mediate performance; whether digital inclusion affects adoption; whether service digitization reduces administrative costs; and how counties differ in digital-service maturity. A particularly valuable research design would combine administrative data from eCitizen with citizen-survey data and public-sector employee data, enabling researchers to estimate the causal relationship between digital adoption and measurable service outcomes. Future research should also examine the unintended consequences of digital government, including exclusion, algorithmic discrimination, cybersecurity risks, privacy concerns, and dependence on centralized digital infrastructure.

10 CONCLUSION

Kenya's eCitizen platform represents a significant development in the country's transition towards digital government. Its rapid expansion in the number of services and users demonstrates that digital government has moved from an experimental policy domain into the mainstream of public administration, with official evidence indicating substantial growth in both the number of digitized services and platform users (Government of Kenya, State Department for Immigration and Citizen Services, 2025). Nevertheless, the principal policy challenge is no longer whether government can put services online; the more important question is whether digital technology can transform how government works.

This article has argued that the answer depends on a combination of technology, institutions, people, and governance. eCitizen can reduce transaction costs, improve convenience, strengthen payment traceability, facilitate institutional integration, and contribute to transparency, yet these benefits cannot be guaranteed by the platform itself. They depend on reliable infrastructure, user acceptance, capable public employees, interoperable systems, effective service redesign, cybersecurity, data protection, and digital inclusion. The theoretical synthesis developed in this article demonstrates that TAM and UTAUT explain the individual-adoption dimension, while the DeLone and McLean model explains system and information quality; public-value theory broadens the analysis to include social outcomes, trust, equity, and accountability. Together, these perspectives suggest that technology adoption is a means rather than an end.

The most important policy implication is therefore that Kenya should move from a digitization paradigm, which asks how many government services have been put online, to a digital-performance paradigm, which asks how much faster, cheaper, fairer, more accessible, more transparent, and more responsive government has become because of digital technology. The second question should become the basis for evaluating eCitizen and Kenya's broader digital-government agenda.

Ultimately, eCitizen will become a genuine performance enabler when it functions not merely as a portal through which citizens access government but as integrated institutional infrastructure through which government redesigns its processes, manages information, coordinates agencies, protects citizens' rights, and delivers measurable public value. The future of Kenya's digital public service should therefore be characterized by five guiding principles: digital by design, citizen by default, data responsibly, inclusion by necessity, and performance by evidence. If these principles are embedded into the next phase of Kenya's digital transformation, eCitizen can evolve from a successful digital-service platform into a foundational component of a more efficient, accountable, inclusive, and citizen-centered public administration.

STATEMENTS ON COMPLIANCE WITH ETHICAL STANDARDS

Disclosure of conflict of interest

The authors declare no conflicts of interest regarding this manuscript.

REFERENCES

- [1] Davis, F. D. (1989). Perceived Usefulness, Perceived Sase of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- [2] DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean Model of Information Systems Success: A Ten-Year Update. *Journal of Management Information Systems*, 19(4), 9–30. <https://doi.org/10.1080/07421222.2003.11045748>
- [3] Government of Kenya. (2019). *Data Protection Act, 2019*. Government Printer.
- [4] Government of Kenya, Ministry of Information, Communications and the Digital Economy. (2022). *Kenya National Digital Master Plan 2022–2032*. Government of Kenya.

- [5] Government of Kenya, Ministry of Information, Communications and the Digital Economy. (2026). *2026 Budget Policy Statement Presentation*. Government of Kenya.
- [6] Government of Kenya, National Treasury. (n.d.). *eCitizen: Government Digital Payments Unit*. National Treasury. Retrieved August 25, 2026.
- [7] Government of Kenya, State Department for Immigration and Citizen Services. (2025). *eCitizen Bulletin* (Vol. 1, Issue 5). Government of Kenya.
- [8] Government of Kenya, State Department for Immigration and Citizen Services. (n.d.). *eCitizen Directorate and Mandate*. Government of Kenya. Retrieved August 25, 2026.
- [9] Kemboi, M. K., & Premanandam, P. (2026). Impact of e-Governance and Huduma Services on Public Service Delivery in Kenya During the 2025 Public Sector Reforms. *Discover Global Society*, 4, Article 48. <https://doi.org/10.1007/s44282-026-00374>
- [10] Ngeywo, M. J., & Ghabon, Y. K. (2026). Evaluating the Impact of e-Government Platforms on Public Service Delivery in Kenya. *International Journal of Research and Scientific Innovation*, 13(2), 166–176. <https://doi.org/10.51244/IJRSL.2026.13020015>
- [11] OECD. (2020). *The OECD Digital Government Policy Framework: Six Dimensions of a Digital Government*. OECD Publishing.
- [12] OECD. (2026). *Digital Government Outlook 2026*. OECD Publishing.
- [13] Twizeyimana, J. D., & Andersson, A. (2019). The Public Value of e-Government: A Literature Review. *Government Information Quarterly*, 36(1), 167–178. <https://doi.org/10.1016/j.giq.2019.01.001>
- [14] 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>
- [15] Wandabwa, G. M. (2025). Effects of e-Government Adoption on Public Service Organization Performance in Developing Countries: A Case of Kenyan Public Service. *International Journal of Latest Technology in Engineering, Management & Applied Science*, 14(3), 508–525.