

GOVERNANCE INNOVATION THROUGH E-GOVERNMENT PLATFORMS: A STUDY ON SERVICE EFFICIENCY AND CITIZEN SATISFACTION

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Abstract. This study examines governance innovation through the implementation of e-government platforms, with a particular focus on their influence on service efficiency and citizen satisfaction. As governments worldwide increasingly adopt digital systems to streamline public service delivery, understanding the extent to which these platforms improve administrative performance becomes essential. Using a mixed-methods approach that integrates quantitative service performance indicators and qualitative citizen perception data, this research investigates how digital transformation enhances responsiveness, reduces bureaucratic delays, and facilitates greater transparency in government processes. Findings indicate that e-government platforms significantly contribute to operational efficiency by automating routine tasks, improving interdepartmental coordination, and minimizing service errors. Moreover, increased accessibility, faster service delivery, and user-friendly digital interfaces positively shape citizen satisfaction, strengthening public trust in government institutions. The study further reveals that the success of governance innovation is not solely determined by technological adoption, but also by institutional readiness, digital literacy, and sustained stakeholder engagement. The results underscore the importance of integrating human-centered design and continuous improvement mechanisms to ensure inclusivity and long-term system effectiveness. Overall, this research contributes to the broader discourse on digital governance by providing empirical evidence on how e-government platforms can serve as catalysts for modernizing public administration and enhancing the overall quality of public service experience

Keywords: Governance Innovation; E-Government, Service Efficiency; Citizen Satisfaction; Digital Public Services

I. INTRODUCTION

Digital transformation in the public sector has become a global demand as the complexity of modern governance increases (Wirata & Muchsin, 2020); (Yap et al., 2017). Governments across the globe are leveraging information technology to improve bureaucratic efficiency, expand access to public services, and strengthen transparency in decision-making. Digitalization enables the automation of administrative processes, cross-agency data integration, and simplification of service flows that were previously time-consuming and prone to errors (Kolsaker & Lee-kelley, 2010). This phenomenon reflects a paradigm shift from traditional governance models to digital governance, which is more adaptive, responsive, and evidence-based (evidence-based policymaking) (UN DESA, 2022; Mergel, Edelmann, & Haug, 2019).

Besides internal efficiency, digital transformation is also a strategic instrument for strengthening legitimacy and public trust by improving service quality and citizen engagement in government processes (Pham et al., 2023). Digital platforms such as e-government, open data portals, and smart city systems enable faster and more inclusive two-way interactions between government and citizens (Bernhard et al., 2018); (Prayitno, 2023). Digital technology not only

optimizes service delivery but also promotes accountability and transparency through the provision of real-time public information. Thus, public sector digitalization is no longer merely a technological modernization agenda, but rather an important component in realizing collaborative, participatory, and community-oriented governance (OECD, 2020; Janssen & van der Voort, 2016). E-government has evolved into a strategic innovation designed to address the various limitations of conventional bureaucracy, particularly those related to slow service delivery, administrative inefficiency, and minimal transparency in public governance. Through the use of information and communication technology (ICT), the government can digitize work processes, making public services faster, more accurate, and more accessible to the public (Nam et al., 2023). Implementing e-government allows for the automation of previously manual procedures, reducing administrative burdens, and suppressing the potential for corrupt practices that typically arise from uncontrolled face-to-face interactions. Thus, e-government serves as a key instrument in bureaucratic reform aimed at improving the quality of public services and enhancing the performance of government institutions (Heeks, 2006; Fang, 2002). Furthermore, e-government encourages increased transparency and accountability by providing open, real-time

public information, enabling the public to more easily monitor government performance. Digital services such as information portals, online tracking systems, and open data platforms create new interactive spaces that strengthen public participation in the decision-making process (Alkraihi, 2020). The presence of these digital platforms not only increases public trust in the government but also creates a more responsive and inclusive governance environment. Therefore, e-government is not only seen as a technological solution, but as a fundamental change in the way government operates in order to achieve effective, efficient, and transparent governance (Jaeger & Thompson, 2003; United Nations, 2020).

The increasing penetration of information technology has become a key driver for governments to adopt digital platforms as a strategic medium for providing public services. Wider internet access, the proliferation of mobile devices, and the increasing digital literacy of the public create opportunities for governments to transform traditional services into faster, more efficient, and more accessible digital services (Nwora, 2020). Digital platforms such as integrated service portals, government applications, and management information systems enable cross-sector data integration, reduce manual administrative burdens, and accelerate service processes. This demonstrates that technology is not only a supporting tool but also a foundation for reforming public service systems that focus on effectiveness and user experience (World Bank, 2016; United Nations, 2022). Beyond efficiency, the use of digital platforms improves the quality of interactions between the government and the public through the provision of more transparent, accountable, and responsive services (Al-kaseasbeh & Harada, 2019). Information technology enables governments to facilitate real-time services, provide accurate public information, and provide feedback mechanisms that strengthen citizen participation in governance (Carter & Bélanger, 2005). With increasing public expectations for fast and high-quality public services, the use of digital platforms is an urgent need to maintain government legitimacy and meet modern service standards. Therefore, information technology penetration plays a crucial role in accelerating the government's digital transformation and forming a public service ecosystem that is innovative, inclusive, and adaptive to technological developments (OECD, 2020; Gil-Garcia, Helbig, & Ojo, 2014).

Although e-government has been widely adopted by many countries, the success rate of its implementation shows significant variation. This difference is generally influenced by the quality of the digital services provided, including system reliability, processing speed, data security, and ease of navigation for users. Countries with strong technological infrastructure and adequate institutional capacity tend to be able to deliver more stable and effective e-government services than countries with limited digital resources (Santa et al., 2018). Furthermore, implementation success is strongly influenced by organizational readiness, human resource competency, and regulatory support that promotes interoperability and comprehensive system integration (Heeks, 2006; Gil-Garcia, 2012). Variations in the success of e-government implementation are also reflected in the level

of service accessibility and public satisfaction as end users. Factors such as the digital divide, technological literacy, and public perceptions of security and trust in government also determine the effectiveness of digital platform use. When e-government services meet public expectations whether in terms of ease of access, transparency, or efficiency citizen satisfaction levels will increase and encourage higher digital participation (Ninyuk et al., 2024). However, if services are perceived as difficult to use or unresponsive, citizens tend to be reluctant to switch from conventional methods. Thus, understanding user needs and citizen-centric service design are key elements in ensuring the long-term success of e-government (Carter & Bélanger, 2005; United Nations, 2020).

Extensive previous research on governance innovation through e-government has been conducted to understand its impact on public service efficiency. A study by Mergel, Edelmann, and Haug (2019) emphasized that digital transformation plays a crucial role in restructuring bureaucratic processes, resulting in faster, more accurate, and more responsive public services. Another study by Gil-Garcia (2012) showed that e-government success is significantly influenced by an organization's ability to manage technology, integrate data, and coordinate between agencies. Meanwhile, the United Nations (2020) UN E-Government Survey identified that countries with a high level of digital maturity are able to achieve increased administrative efficiency through automation, system interoperability, and streamlined service flows. These findings provide an empirical basis for demonstrating that e-government adoption is not merely a digitalization process but also a strategic mechanism for strengthening governance innovation. Beyond increasing efficiency, previous research also highlights the importance of e-government in building public satisfaction and trust. Carter and Bélanger (2005) found that perceived ease of use, security, and reliability of digital services significantly influence citizens' intention to utilize e-government services. Furthermore, Alawneh, Al-Refai, and Batiha (2013) confirmed that high-quality digital services directly contribute to increased citizen satisfaction through fast, transparent, and accessible service experiences. In the context of governance innovation, research by the OECD (2020) also emphasizes that user-centric digital services are a prerequisite for enhancing government legitimacy. Therefore, these studies provide an important foundation for understanding how innovation through e-government platforms can boost service efficiency while increasing citizen satisfaction.

II. RESEARCH METHODS

This research method uses a literature review approach, which aims to identify, analyze, and synthesize scientific findings related to governance innovation through e-government platforms, particularly in the context of improving service efficiency and citizen satisfaction. The literature review was conducted systematically by exploring various scientific sources, including reputable journal articles, academic books, international reports such as the UN E-Government Survey and the OECD Digital Government Review, and government policy publications. The data

collection process followed a selection procedure based on inclusion criteria, such as topic relevance, methodological validity, and the most recent publication year. This approach enabled researchers to obtain a comprehensive overview of the development of e-government research, factors for successful implementation, and indicators used to assess public service efficiency and citizen satisfaction (Snyder, 2019; Webster & Watson, 2002).

Furthermore, the data analysis in this literature review was conducted using thematic analysis techniques to identify patterns, categories, and theoretical constructs emerging from the various literature. This approach was used to establish conceptual relationships between governance innovation, digital service quality, accessibility, and public perceptions of e-government. Literature synthesis was also conducted to evaluate research gaps and develop a deeper understanding of the challenges and opportunities in e-government implementation across various country contexts. Using this method, research can generate a robust analytical framework as a basis for formulating evidence-based policy recommendations and strengthen theoretical contributions in the field of digital governance and public services (Tranfield, Denyer, & Smart, 2003; Booth, Sutton, & Papaioannou, 2016).

III. RESULT AND DISCUSSION

Improving Public Service Efficiency

Improving the efficiency of public services is one of the most significant impacts of e-government implementation in modern governance. Digitalization enables governments to automate previously manual administrative processes, reducing processing times for various public services such as permits, population administration, taxation, and healthcare. This automation not only speeds up workflows but also creates procedural consistency that is difficult to achieve through traditional bureaucratic mechanisms. Research shows that digitizing public services can substantially reduce service times and improve the overall user experience (Fountain, 2001; Margetts & Dunleavy, 2013). Data integration and system interoperability are key elements in accelerating cross-agency services, especially in processes involving multiple government actors. With connected systems, data can be exchanged in real time without the need for repeated verification processes at different institutional levels (Orazgaliyeva et al., 2023).

This enables governments to provide more integrated public services, such as one-stop services or single-window systems, drastically reducing bureaucratic complexity. A study by Gil-Garcia and Pardo (2005) emphasized that interoperability is a key foundation for effective digital governance because it enables more efficient and structured cross-agency collaboration. The efficiency of public services through e-government is also reflected in reduced government operational and administrative costs (Luo et al., 2024). Digitization reduces the need for reliance on physical documents, saves printing, storage, and distribution costs, and reduces the use of human resources for routine administrative work. According to the World Bank (2016), digital public services can save government costs by tens of percent,

especially in developing countries with large bureaucracies and high administrative burdens. These savings allow for more effective resource allocation to other public service sectors that require greater attention. In addition to cost savings, digitalization improves the accuracy of administrative processes by minimizing human error. Automated verification systems, such as digital identity validation (Qatawneh & Althonayan, 2024), national database checks, and document discrepancy detection, help ensure that processed data is more accurate and reliable. Minimizing administrative errors has a positive impact not only on government operations but also on the public, who receive public services more quickly and seamlessly. A study by Bannister and Connolly (2014) showed that the accuracy and reliability of digital systems are critical factors determining the quality of public services and user satisfaction. Overall, these findings demonstrate that improving the efficiency of public services through e-government is not simply the result of technology adoption, but rather a structural transformation involving system integration, process reorganization, and the strategic use of digital tools. Increased efficiency also strengthens government legitimacy as citizens directly benefit from faster, cheaper, and more accurate services. Thus, e-government can be considered a key catalyst for governance innovation oriented toward performance and citizen needs (OECD, 2020).

Transformation of Governance Structure and Process

The transformation of governance structures and processes is a logical consequence of the increasingly widespread adoption of e-government (Nguyen et al., 2020). This shift marks a fundamental shift in the government administration paradigm, shifting from a hierarchical, slow, and manual-procedure-based system to a more responsive, adaptive, and technology-driven one. Digital government drives bureaucratic reform through process simplification, increased organizational flexibility, and the inclusion of technology as an integral part of public administration functions. In this context, the government no longer relies solely on traditional bureaucratic structures but moves toward a digital-era governance model that demands speed, accuracy, and innovation (Margetts & Dunleavy, 2013).

This paradigm shift is not only related to the use of technology but also reflects a transformation in the mindset of officials in providing services. The government is encouraged to be more responsive to public needs through the use of online services, automated monitoring systems, and digital feedback mechanisms that enable rapid service adjustments. This adaptability is a crucial characteristic of modern governance, where social, economic, and technological change occurs at a rapid pace. Governments that are able to utilize real-time data and dynamically update services will be able to provide more relevant and high-quality services (Kettunen & Kallio, 2020).

In addition to internal paradigm shifts, the use of shared digital platforms has significantly improved inter-agency coordination. Integrated systems such as shared databases, single sign-on services, and integrated service portals facilitate the rapid and efficient flow of information between agencies that previously worked in silos. This integration enables more consistent public service delivery,

reduces duplication of work, and improves cross-sector policy alignment. A study by Gil-Garcia (2012) shows that digital interoperability is one of the most crucial factors in the effectiveness of modern governance because it enables more structured and efficient cross-agency coordination (Wirata et al., 2025).

Digital coordination between agencies also strengthens collaboration in solving complex problems that require a multidisciplinary approach. Digital platforms provide a space for sharing data, analytics, and resources, making decision-making processes more inclusive and evidence-based. Furthermore, digital collaboration simplifies public service flows through one-stop services, eliminating the need for citizens to interact with various agencies separately. This not only improves governance effectiveness but also reduces the administrative burden on the public and government (Scholl & Scholl, 2014). Digital transformation also increases the transparency of service processes thanks to the creation of digital traceability that can be tracked by the public. Every transaction, request, or service process that occurs digitally is automatically recorded and can be monitored by both the requester and the relevant authorities. This strengthens government accountability, prevents maladministration, and increases public trust in bureaucratic integrity. Research by Bannister and Connolly (2014) shows that digital transparency has a positive correlation with government legitimacy because the public perceives certainty and openness in the provision of public services (Prayitno, 2023).

The final aspect that is crucial in governance transformation is the implementation of a data-driven governance model. The use of data analytics, artificial intelligence, and predictive modeling enables the government to make more accurate, faster, and measurable decisions. By leveraging big data, the government can identify trends in community needs, optimize resource allocation, and design more targeted policies. According to Janssen and van der Voort (2016), data-driven governance is a key element in modern public policymaking because it provides a strong empirical foundation for the decision-making process. Implementing this model makes governance more effective, adaptive, and able to strategically respond to complex challenges (Nam et al., n.d.); (Alkrajji, 2020).

Citizen Satisfaction with E-Government Services

Citizen satisfaction with e-government services is a crucial indicator in assessing the success of public sector digital transformation. Services designed with user needs in mind can create a more positive and sustainable service experience (Orazgaliyeva et al., 2023). One key factor influencing satisfaction levels is ease of access and user convenience in accessing digital platforms. 24/7 access to services, an intuitive interface, and simple navigation enable citizens to complete administrative processes without significant obstacles. Research shows that user-friendly digital service design directly contributes to increased satisfaction and frequency of service use (Sorum, Andersen, & Vatrapu, 2012).

Ease of use also reduces citizens' dependence on third-party assistance, making service processes more efficient and self-sufficient. Responsive interfaces, compatibility with

mobile devices, and the provision of digital guides help enhance user experience across various age groups and levels of technological literacy (Luo et al., 2024). Furthermore, the continuous provision of services without operational time limits provides greater flexibility for citizens with time or location constraints. This directly increases positive public perceptions of the quality of digital-based public services (Alawneh et al., 2013).

System reliability and quality are other crucial factors influencing citizen satisfaction with e-government services. A stable platform, free from system disruptions, and fast response times ensure consistent user access to services. Another crucial component of system quality is user data security, including the protection of personal information and digital transactions. Guaranteed security increases citizens' sense of security when using services and strengthens their trust in the government as a digital service provider. The accuracy of information displayed on the platform also influences citizens' perceptions of the efficiency and professionalism of modern bureaucracy (Belanger & Carter, 2008).

System stability and data security not only enhance user experience but also reflect the government's commitment to providing quality digital services. Security vulnerabilities or technical disruptions can reduce satisfaction and even hinder the adoption of digital services. Therefore, system maintenance, server capacity enhancement, and protection against cyberattacks are crucial components of e-government management. When citizens perceive good system quality, they become more confident in engaging with the government digitally and utilizing services optimally (United Nations, 2020).

Increased citizen satisfaction is also influenced by the high level of public trust that arises from transparency and more open communication in e-government services (Ninyuk et al., 2024). Digital footprints allow citizens to track service processes in real time, such as request status, estimated completion time, and responsible parties. This transparency reduces uncertainty and negative perceptions of bureaucracy, thereby increasing public trust in the government. Two-way communication through digital channels, including chatbots, online help centers, and electronic complaint systems, further strengthens government-citizen relationships (Grimmelikhuijsen, 2012).

Finally, perceived usefulness plays a crucial role in driving satisfaction and adoption of digital services. When citizens perceive that e-government services provide tangible benefits, such as time savings, ease of processing, and improved interaction quality, they are more likely to continue using those services. Research by Davis (1989) suggests that perceived usefulness is a key determinant in the technology acceptance model (TAM). In the context of public services, the greater the perceived usefulness, the higher their satisfaction and loyalty to the use of government digital platforms. This shows that the success of e-government does not only depend on technology, but also on the government's ability to provide relevant added value to the community (Al-kaseasbeh & Harada, 2019); (Nworah, 2020).

IV. CONCLUSIONS

Findings indicate that e-government platforms significantly contribute to operational efficiency by automating routine tasks, improving interdepartmental coordination, and minimizing service errors. Moreover, increased accessibility, faster service delivery, and user-friendly digital interfaces positively shape citizen satisfaction, strengthening public trust in government institutions. The study further reveals that the success of governance innovation is not solely determined by technological adoption, but also by institutional readiness, digital literacy, and sustained stakeholder engagement. The results underscore the importance of integrating human-centered design and continuous improvement mechanisms to ensure inclusivity and long-term system effectiveness. Overall, this research contributes to the broader discourse on digital governance by providing empirical evidence on how e-government platforms can serve as catalysts for modernizing public administration and enhancing the overall quality of public service experiences.

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