



E-Governance and Citizen Satisfaction with Public Services

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ARTICLE DETAILS	ABSTRACT
History Revised format: Out, 2018 Available Online: Dec, 2018 Keywords: E-governance, citizen satisfaction, public services, digital government, service quality, public trust	E-governance has transformed the relationship between citizens and public institutions by enabling government information, administrative procedures, payments, applications, complaints, and other services to be accessed through digital platforms. This transformation has created opportunities to improve the efficiency, accessibility, transparency, and responsiveness of public services. However, the availability of an online portal or mobile application does not automatically produce citizen satisfaction. Satisfaction depends on citizens' actual experiences with the accuracy of information, ease of navigation, reliability of digital systems, speed of service completion, protection of personal data, responsiveness to complaints, and availability of support when technical or administrative difficulties arise. This conceptual article examines the relationship between e-governance and citizen satisfaction, with particular attention to developing countries and Pakistan. It integrates the Information Systems Success Model, technology-acceptance perspectives, electronic service-quality literature, and public-value theory. The discussion identifies system quality, information quality, service quality, trust, accessibility, transparency, responsiveness, digital literacy, and institutional integration as major determinants of satisfaction. It argues that citizen satisfaction should not be measured merely through website visits, application downloads, or the number of services placed online. Governments must determine whether citizens can complete transactions successfully, receive decisions within reasonable periods, understand administrative requirements, obtain assistance, and challenge incorrect outcomes. In Pakistan, digital identity systems, online taxation, electronic payments, land-record services, complaint portals, and departmental applications demonstrate the potential of e-governance. Nevertheless, unequal internet access, limited digital literacy, fragmented databases, language barriers, cyber security concerns, and inconsistent institutional capacity continue to affect citizens' experiences. The article concludes that citizen-centered design, integrated service delivery, multilingual access, data protection, transparent performance standards, continuous feedback, assisted digital channels, and independent evaluation are essential for increasing satisfaction.

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Introduction:

E-governance refers to the strategic use of information and communication technologies by public institutions to deliver services, manage administrative processes, communicate with citizens, support participation, and improve public-sector performance. It includes government websites, mobile applications, electronic payment systems, online licensing, digital identity services, tax portals, land-record systems, complaint-management platforms, open-data portals, and internal government information systems. Although e-governance was initially associated with placing public information online, contemporary digital government increasingly involves integrated databases, automated workflows, digital identification, proactive service delivery, data-informed decision-making, and interaction across multiple public institutions. The international importance of digital government has increased as citizens have become accustomed to fast, accessible, and personalized digital services in other areas of life. Citizens increasingly expect public services to be available without repeated office visits, unnecessary paperwork, informal intermediaries, and long waiting periods. Governments also view digital transformation as a means of lowering administrative costs, reducing processing delays, limiting opportunities for corruption, improving record management, and expanding access to underserved populations. The United Nations E-Government Survey 2024 assesses the digital-government development of all 193 United Nations Member States, demonstrating the global significance of online services, telecommunications infrastructure, and human capacity in public-sector transformation. However, the expansion of e-governance should not be confused with the achievement of effective governance. A poorly designed electronic service may transfer an inefficient paper process to an online platform without eliminating its complexity. Citizens may still experience confusing instructions, repeated requests for documents, failed payments, inaccessible interfaces, unresponsive complaint systems, or long delays after submitting an electronic application. Consequently, the success of e-governance must be evaluated from the perspective of the citizen rather than only through technological or administrative indicators. Citizen satisfaction represents an individual's overall evaluation of the quality and outcome of interactions with government. It develops when citizens compare their expectations with their actual experience. When a digital service is reliable, understandable, timely, secure, and fair, satisfaction is likely to increase. When citizens encounter errors, unexplained rejection, poor communication, inaccessible systems, or unresolved complaints, dissatisfaction may develop even when the service is technically available online. The relationship between e-governance and satisfaction is also connected with public trust. Positive experiences can strengthen perceptions that government institutions are competent, responsive, and concerned with citizen needs. Negative experiences may reinforce distrust, particularly when digital systems appear to hide accountability or prevent citizens from communicating with responsible officials. Welch, Henan, and Moon (2005) identified an important relationship between satisfaction with e-government, satisfaction with government websites, and wider trust in government. This article adopts a conceptual-review approach. It does not claim to present original survey findings. Instead, it examines theoretical and policy literature to explain how e-governance can influence citizen satisfaction and how digital public services can be improved, particularly in Pakistan.

Conceptual Foundations of E-Governance and Citizen Satisfaction:

The Information Systems Success Model developed by DeLong and McLean provides an important theoretical foundation for evaluating e-governance. The model identifies system quality, information quality, service quality, use, user satisfaction, and net benefits as interconnected dimensions of information-system success. In an e-governance setting, system quality refers to reliability, speed, usability, technical stability, and compatibility across devices. Information quality concerns the accuracy, relevance, completeness, clarity, and timeliness of information. Service quality relates to the assistance, responsiveness, and institutional support available to users. These dimensions demonstrate why the number of people visiting a government website is an inadequate measure of success. Citizens may visit a portal because a service is compulsory; yet remain dissatisfied with its design or outcome. Similarly, a high number of registered users do not necessarily mean that transactions were completed

successfully. Governments must distinguish between initial adoption, continued use, successful service completion, and satisfaction. Technology-acceptance theories also help explain why citizens use or avoid digital services. The Unified Theory of Acceptance and Use of Technology propose that performance expectancy; effort expectancy, social influence, and facilitating conditions shape technology adoption (Venkatesh et al., 2003). In public services, performance expectancy concerns whether citizens believe the platform will save time, lower costs, or improve access. Effort expectancy relates to how easy the service is to understand and operate. Facilitating conditions include internet access, digital skills, device availability, payment options, and technical support. Trust represents another fundamental element. Citizens must trust both the public institution and the technology through which the service is delivered. Carter and Beranger (2005) found that perceived ease of use, compatibility, and trustworthiness significantly influence citizens' intentions to use e-government services. Citizens may refuse to submit personal data online when they are uncertain about privacy, identity theft, cyber security, data sharing, or the legal status of electronic documents. Citizen satisfaction must also be connected with public value. Public institutions are expected to pursue values that extend beyond efficiency, including fairness, transparency, accountability, equality, participation, privacy, legality, and social inclusion. Bannister and Connolly (2014) argue that digital transformation should be assessed according to its contribution to public values rather than technology adoption alone. A digital service that reduces costs but excludes people with disabilities, rural residents, older citizens, or individuals with limited literacy cannot be considered fully successful. Citizen satisfaction is therefore multidimensional. It includes satisfaction with the technical platform, administrative process, service outcome, staff support, and treatment of personal information, complaint mechanism, and fairness of the final decision. Effective evaluation should examine all these dimensions.

Determinants of Citizen Satisfaction with Digital Public Services:

System Quality and Ease of Use:

System quality is one of the strongest determinants of citizen satisfaction. Digital public services should load quickly, remain available during periods of high demand, function on commonly used mobile devices, and allow users to save incomplete applications. Navigation should be simple, instructions should be visible, and forms should avoid requesting information already held by government departments. Technical failures create both direct and indirect costs. A citizen may lose time, pay repeated transaction charges, miss a legal deadline, or travel to a government office after an online attempt fails. Such experiences reduce confidence not only in the platform but also in the responsible institution. Governments should therefore monitor failure rates, abandoned applications, payment errors, server downtime, and average completion time.

Information Quality:

Citizens require complete and understandable information about eligibility, required documents, fees, timelines, application procedures, and appeal mechanisms. Inconsistent information across websites, helplines, offices, and social media creates confusion. Information quality is especially important when public services concern taxation, education, health, identity documentation, social protection, land ownership, or business regulation. Official information should be updated whenever a policy, form, fee, or administrative requirement changes. Each webpage should indicate the responsible department and date of revision. Complex legal and technical language should be translated into plain language without removing essential legal meaning.

Electronic Service Quality:

Papadomichelaki and Mantas (2012) developed the e-GovQual scale to assess the quality of government electronic services. Its dimensions include efficiency, trust, reliability, and citizen support. Efficiency concerns the citizen's ability to locate and use a service with minimum effort. Reliability concerns whether the service operates correctly and produces the expected result. Trust includes security, privacy, and confidence in government. Citizen support refers to the assistance available when users experience difficulties. These dimensions indicate that governments must evaluate the complete service journey. A visually attractive homepage cannot compensate for a complicated application form, an unsuccessful

payment, or an unanswered complaint. Satisfaction depends on the performance of the entire administrative system.

Speed and Responsiveness:

Digital submission should lead to faster administrative action. Citizens become dissatisfied when applications can be submitted online but are subsequently processed through slow manual procedures. Government departments should publish realistic service-delivery timelines and provide electronic status tracking. Responsiveness also includes communication. Citizens should receive confirmation that an application has been submitted, notification when additional information is required, reasons for delays, and a written explanation of the final decision. Automated notifications can improve communication, but citizens must also have access to trained staff when cases are unusual or complex.

Transparency and Procedural Fairness:

E-governance can improve transparency by showing applicable fees, processing stages, responsible offices, decision criteria, and expected completion dates. Digital records can reduce undocumented discretion and make it easier to investigate delays or irregularities. Nevertheless, automation can also reduce transparency when citizens do not understand how a decision was reached. Where automated tools are used, governments should disclose their purpose and maintain meaningful human review. Citizens should be able to correct inaccurate data, challenge decisions, and request reconsideration. Satisfaction is likely to increase when procedures are understandable and citizens believe they have been treated consistently.

Privacy, Security, and Institutional Trust:

Digital public services frequently collect identity details, financial data, family information, health records, property information, and biometric data. A security breach can produce serious harm and undermine confidence across the entire digital-government system. Privacy and cyber security should therefore be integrated into service design from the beginning. Morgeson, VanAmburg, and Mithras (2011) demonstrate that the relationship between e-government experience and wider institutional trust is complex. Citizens may value an individual digital service while retaining negative perceptions of government, or they may judge the service partly through their existing institutional attitudes. Governments must therefore combine technological reliability with ethical data governance, accountability, and effective communication.

E-Governance and Public-Service Satisfaction in Pakistan:

Pakistan has recognized digital transformation as an instrument for economic development, improved public administration, connectivity, innovation, and citizen welfare. The Digital Pakistan Policy was officially introduced in 2018 and provided a national policy direction for the development of digital infrastructure, public-sector technology, electronic services, digital skills, and related institutional frameworks. Digital identity management, online tax systems, electronic payments, digitized land records, license applications, educational portals, social-protection databases, complaint platforms, and mobile-based information services illustrate the growing role of technology in Pakistani public administration. These initiatives can reduce physical travel, documentation costs, waiting times, and dependence on intermediaries. Digital records can also strengthen institutional memory and reduce the loss or manipulation of files.

Nevertheless, citizen satisfaction is likely to vary across sectors, provinces, institutions, and population groups. A service that works effectively for an urban, educated smartphone user may remain inaccessible to a rural citizen with limited connectivity or literacy. Similarly, digital services available only in English may exclude citizens who are more comfortable using Urdu, Punjabi, Sindhi, Pashto, Bloch, Savaii, or other regional languages.

Pakistan's federal structure creates both opportunities and coordination challenges. Provincial and federal departments may develop separate systems using different technical standards and databases. Citizens can consequently be required to create multiple accounts, submit the same documents repeatedly, or visit offices to verify information already available elsewhere in government. The World Bank's GTECH framework evaluates digital-government maturity across core government systems,

public-service delivery, digital citizen engagement, and institutional enablers. The 2025 update covers 198 economies through 48 indicators, reflecting the importance of infrastructure, strategy, legislation, skills, innovation, online services, open data, and participation in assessing digital transformation. These dimensions are particularly relevant to Pakistan because successful digital government requires coordination among technology systems, public institutions, laws, employees, and citizens. To increase satisfaction in Pakistan, digitalization should focus on high-impact life events. These include registering a birth, obtaining identity documents, enrolling in education, receiving healthcare, paying taxes, purchasing or transferring property, registering a business, accessing social assistance, reporting a complaint, and obtaining official certificates. Organizing services around citizens' needs rather than departmental boundaries can produce a more coherent experience.

Challenges Limiting Citizen Satisfaction:

The Digital Divide:

The digital divide includes inequalities in connectivity, device ownership, affordability, digital skills, language, disability access, and confidence in using technology. Moving services entirely online can create new forms of exclusion when alternative channels are removed. Digital government must therefore be inclusive rather than exclusively digital. Assisted digital service centers, helplines, community access points, and trained facilitation staff should remain available. These channels should help citizen's complete digital procedures without forcing them to depend on unregulated agents who may charge excessive fees or misuse personal information.

Fragmented Institutional Systems:

A citizen's request frequently involves several institutions. For example, business registration may require interaction with taxation, local government, labour, banking, and licensing authorities. When databases are not interoperable, citizens carry documents between agencies and repeat the same information. Interoperability can improve satisfaction by enabling secure information exchange. However, data sharing must be governed by clear legal authority, purpose limitations, security standards, consent rules where appropriate, and mechanisms for correcting inaccurate records.

Administrative Resistance:

Technology cannot improve services when public institutions retain outdated procedures and organizational cultures. Employees may resist digital workflows because of inadequate training, fear of job loss, unclear authority, or continued preference for paper records. Parallel paper and electronic systems may increase rather than reduce workloads. Digital transformation therefore requires process redesign, staff training, leadership support, change management, and updated service rules. Employees should understand that e-governance is intended to improve administrative capacity and citizen service rather than simply introduce additional software.

Cyber security and Privacy Concerns:

Citizens may avoid digital services when they fear data theft, unauthorized surveillance, financial fraud, or misuse of personal information. Public institutions must adopt strong access controls, encryption, secure authentication, audit trails, incident-response procedures, and regular security testing. Citizens should be informed about what information is collected, why it is required, how long it will be retained, which institutions may access it, and how errors can be corrected. Privacy notices should be understandable rather than written only in highly technical or legal language.

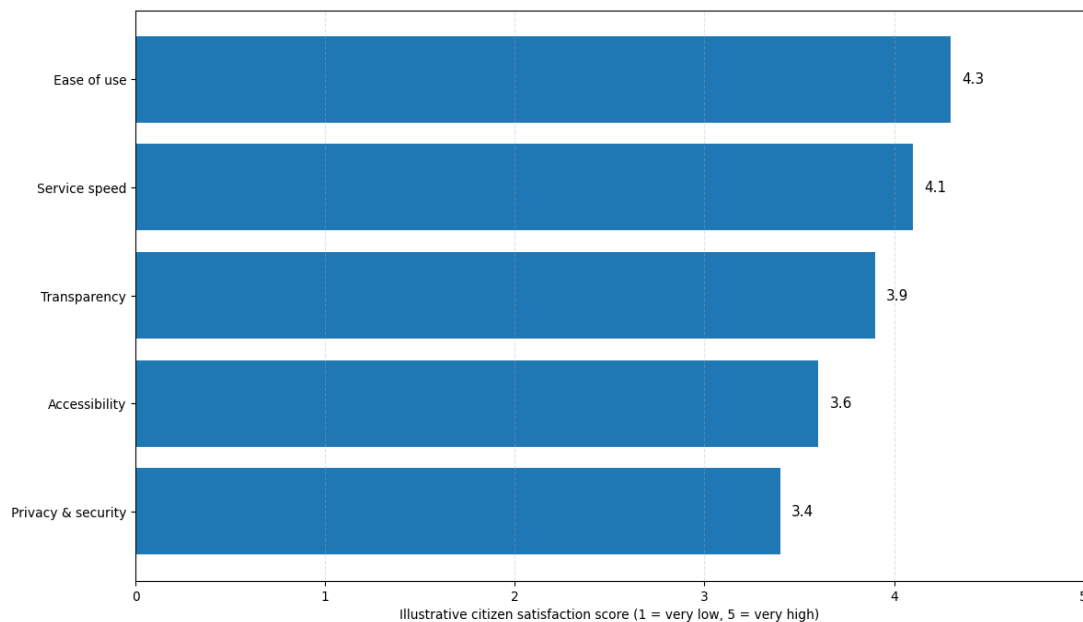
Weak Complaint and Redress Mechanisms:

A complaint portal has limited value when complaints are automatically closed, repeatedly transferred, or answered without resolving the issue. Effective systems should assign responsibility, provide tracking numbers establish response deadlines, allow the submission of evidence, and permit escalation. Complaint data should be used as an institutional-learning resource. Repeated complaints may reveal confusing forms, staff shortages, technical failures, discriminatory practices, or weaknesses in policy design. Resolving these systemic causes can produce greater satisfaction than responding to each complaint separately.

5. Policy Framework for Improving Citizen Satisfaction:

The first policy priority should be citizen-centered service design. Citizens from different backgrounds should participate in testing websites, mobile applications, forms, payment processes, and complaint systems before full implementation. User research should identify the actual obstacles citizens experience rather than relying entirely on assumptions made by technical teams or senior officials. Second, governments should adopt a digital-by-design but not digital-only approach. The OECD Digital Government Policy Framework identifies six dimensions: digital by design, data-driven public sector, and government as a platform, open by default, user-driven government, and reactivity. These principles encourage government to redesign services while retaining inclusion and accountability. Third, services should be integrated around major life events. A unified portal could allow citizens to access services through one secure identity, while government departments exchange authorized information in the background. Integration should reduce repeated submissions but must not create uncontrolled centralization of personal data. Fourth, governments should develop measurable service standards. Relevant indicators include portal availability, application completion rates, average processing time, payment-success rates, complaint-resolution time, citizen effort, satisfaction scores, accessibility compliance, and the percentage of services available in multiple languages. Performance dashboards should distinguish between services placed online and services successfully completed online. Fifth, Pakistan should strengthen digital inclusion through affordable connectivity, public-access facilities, regional-language content, mobile-friendly design, and accessibility for persons with disabilities, and practical digital-literacy programmes. Women, rural populations, older people, low-income households, and citizens with limited formal education should be directly included in service testing. Sixth, privacy and cyber security governance should be strengthened. Public institutions should collect only the data necessary for legitimate administrative purposes. Security responsibilities should be clearly allocated, and data breaches should trigger investigation, citizen notification, corrective action, and institutional accountability.

Illustrative Citizen Satisfaction Across E-Governance Service Dimensions



Note: Conceptual values created for this article to demonstrate the expected pattern; not based on a field survey.

Summary:

E-governance can significantly improve citizen satisfaction when it makes public services easier to access, faster to complete, more transparent, more reliable, and less costly. Digital services can reduce the need for repeated office visits, minimize paperwork, improve status tracking, strengthen record

management, support electronic payments, and provide services beyond traditional office hours. These benefits are especially important in countries where citizens face geographical distance, administrative delays, overcrowded offices, and dependence on informal intermediaries. However, technology alone does not guarantee satisfaction. Citizens evaluate both the digital platform and the underlying government institution. A user-friendly application cannot compensate for an unreasonable policy, an unexplained rejection, a delayed decision, or an ineffective complaint process. E-governance must therefore be accompanied by administrative reform, process simplification, staff training, institutional coordination, data governance, and accountability. The article identifies system quality, information quality, service quality, trust, accessibility, responsiveness, transparency, privacy, and procedural fairness as central determinants of satisfaction. System quality requires stable, secure, and mobile-compatible platforms. Information quality requires accurate, updated, and understandable instructions. Service quality includes technical support and administrative assistance. Trust depends on the protection of personal information, institutional competence, ethical conduct, and the availability of meaningful remedies. Pakistan has substantial opportunities to improve public services through digital identity, online taxation, electronic payments, complaint systems, digitized records, and integrated service portals. Nevertheless, digital inequality remains a major challenge. Citizens without reliable internet, smartphones, formal education, digital skills, or proficiency in English may experience exclusion. A citizen-centered strategy should therefore combine online platforms with assisted digital centers, helplines, accessible design, and regional-language services. Interoperability is another important requirement. Government institutions should securely exchange authorized information so that citizens are not repeatedly required to submit the same documents. Such integration must be supported by privacy protections, cyber security controls, clear legal mandates, and procedures for correcting inaccurate data.

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