



ENHANCING PUBLIC SERVICE QUALITY THROUGH MODERN DIGITAL GOVERNANCE MECHANISMS

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Abstract. Digital portals expand access to administrative services, but the number of services placed online says little about whether people can complete a task quickly, reliably and fairly. This paper examines how shared digital infrastructure, interoperable records, user-centred design and feedback arrangements can improve public service quality. It uses an analytical review of OECD, United Nations and World Bank frameworks, peer-reviewed service-quality research, and official evidence on Uzbekistan's digital government. The synthesis develops a mechanism-to-outcome model and an indicator set for evaluating actual service journeys. Uzbekistan's portal expansion and improved 2024 E-Government Development Index provide a useful policy setting, yet neither indicator establishes a causal improvement in citizens' experience. The paper argues that agencies should assess completion, processing time, repeated requests for information, accessibility and complaint resolution by service and population group. It proposes a staged evaluation approach for selected high-volume services, with privacy safeguards and assisted channels. The contribution is an operational framework that connects institutional arrangements to observable service outcomes rather than treating digitisation itself as the outcome.

Keywords: digital governance; public service quality; interoperability; citizen-centred services; Uzbekistan; performance measurement

1 Introduction

The public often judges government by the effort required to obtain a certificate, register a business or resolve a benefits claim. A digital application may remove a visit to an office, but the task can still fail if a user cannot understand eligibility rules, records do not move between agencies, the portal gives no useful status information, or a



decision cannot be challenged. Service quality therefore depends on the complete administrative journey and on the institutions that support it.

International frameworks increasingly make this distinction. The OECD’s digital government framework identifies digital by design, a data-driven public sector, government as a platform, openness, user-driven design and proactiveness as complementary dimensions [1]. The World Bank’s GovTech Maturity Index (GTMI) separately assesses core systems, online service delivery, citizen engagement and enabling institutions [2]. These frameworks describe capabilities; they do not by themselves measure whether a particular person has received an accurate service on time. The OECD’s 2026 review also finds that infrastructure can be present while its adoption across government remains uneven [3].

Uzbekistan makes this question especially relevant. In the United Nations 2024 survey, its E-Government Development Index (EGDI) was 0.7999 and its rank was 63rd, compared with 0.7265 and 69th in 2022 [4, 5]. The Ministry of Digital Technologies reported 525 services on my.gov.uz in 2024, 800 in 2025 and 905 by August 2026 [6]. These figures show a larger digital offering and a stronger composite development score. They do not establish a corresponding change in successful completion, equitable access or user trust. That gap between digital provision and experienced quality motivates this article.

The research question is: through which mechanisms can digital governance improve public service quality, and how should the improvement be tested in Uzbekistan? The paper first sets out a conceptual distinction between capabilities and outcomes, then examines the national policy setting, develops a mechanism-based model, and specifies an evaluation design. Its intended contribution is a practical set of propositions and measures for research and management, not a claim of new survey findings.



2 Literature and Analytical Framework

Digital transformation in government entails changes in processes, roles and public value rather than the simple substitution of a screen for a paper form. Mergel, Edelmann and Haug’s expert-interview study distinguishes transformation from earlier uses of electronic government terminology and locates it in organisational change and expected outcomes [7]. A similar distinction is useful at the service level: the availability of an online form is an output, while obtaining the right decision with reasonable effort is an outcome.

Service quality has both technical and relational dimensions. The e-GovQual instrument by Papadomichelaki and Mentzas identifies reliability, efficiency, citizen support and trust in the evaluation of government websites [8]. In a modern multi-channel service, these dimensions should extend beyond the screen to include the timeliness of back-office decisions, clarity of explanations, accessibility, remedies and equal treatment. A fast automated response is of low quality if it applies incorrect data or prevents a user from correcting an error.

This paper treats quality as a set of experienced and observable properties: a person can discover the right service, submit valid information without unnecessary repetition, track the case, receive an accurate result within a reasonable time, and obtain support or review if needed. The properties may conflict. Extra verification can improve integrity while increasing time and exclusion; proactive data use can reduce forms while creating privacy risks. Good governance makes these trade-offs explicit and assigns responsibility for resolving them.

The OECD’s 2024 Recommendation on Human-Centred Public Administrative Services places user rights, common foundations, seamless design and continuous measurement in one framework [9]. Its 2026 review stresses that user feedback and performance information need to be used more systematically [10]. The analytical model here brings those elements together as a sequence from governance arrangements



through operational mechanisms to service outcomes, with rights and inclusion applying throughout.

3 Materials and Method

This is a conceptual, document-based study. The source set combines peer-reviewed work on transformation and electronic service quality [7, 8]; institutional frameworks from the OECD, United Nations and World Bank [1–4, 9, 10]; and official Uzbekistan sources on strategy and portal development [5, 6, 11]. The documents were selected for their direct bearing on governance mechanisms, service measurement or the national context. They were read as different kinds of evidence: a strategy states an intended policy, a portal count records the scope of an offering, and an international index describes a composite level of development.

The analysis used three steps. First, institutional inputs and digital tools named in the sources were grouped by the administrative function they could change. Second, each function was linked to a plausible user-level outcome and a condition under which the link might fail. Third, measurable indicators and a feasible comparison design were specified. This is a purposive analytical synthesis, not a systematic review or an empirical impact evaluation. No interviews, surveys or administrative microdata were collected for this paper. Accordingly, the propositions below are hypotheses to test rather than measured effects.

4 National Setting and the Evidence Gap

The “Digital Government – 2028” strategy describes inclusion, accessibility, user-centred design, interagency coordination, data-based decisions and digital service development as policy principles [11]. Its architecture lists an interagency integration platform, identification tools, public-facing portals and central information systems. The institutional question is whether these components remove work for citizens and reduce errors in agencies’ decisions, rather than merely increasing the number of digital entry points.



The official series in Table 1 presents two distinct measures. EGDI is a composite international index, with components beyond the service portal; portal service counts refer to the number of offerings. Neither series contains a completion denominator, time-to-decision distribution, accessibility test or case-level complaint outcome. The 2024 and 2026 entries also have different observation dates, so a change in the portal count should be read as expansion of listed services, not as a controlled before-and-after quality estimate.

Table 1. Selected indicators of Uzbekistan’s digital government development

Indicator	Earlier observation	Later observation	What can be concluded
UN EGDI and rank	2022: 0.7265; 69th	2024: 0.7999; 63rd	The composite index and relative position improved [4, 5].
Online Services Index	2022: 0.7440	2024: 0.7648	The online-service component rose modestly [5].
Local Online Services Index	2022: 0.4186	2024: 0.3646	The assessed local-service component fell [5].
Services listed on my.gov.uz	2024: 525; 2025: 800	August 2026: 905	The reported range of online services expanded [6].

Sources: UN DESA [4]; Digital Government Project Management Center [5]; Ministry of Digital Technologies [6]. The reported observations are descriptive and use different measurement systems.

The disaggregated index values add nuance. Uzbekistan’s Online Services Index rose from 0.7440 in 2022 to 0.7648 in 2024, while its Local Online Services Index fell from 0.4186 to 0.3646 over the same survey editions [5]. Those components use different assessment instruments, so their levels are not directly comparable; the divergent movements nonetheless caution against treating a national composite as a uniform measure of access in every locality. A district-level service audit could identify



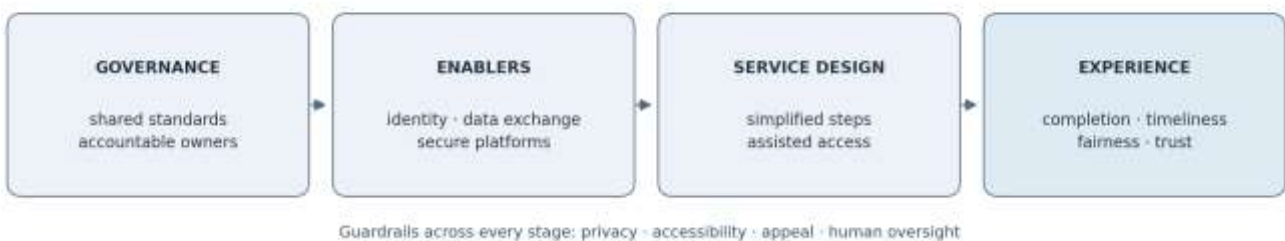
whether residents encounter different information, assistance or processing rules across places.

The global evidence reinforces the need for caution. The World Bank reports uneven progress across GovTech areas and identifies limited monitoring of actual usage and uptake [2]. The OECD’s 2026 Digital Government Outlook notes that the existence of data interoperability systems does not guarantee broad adoption or easy access through digital identity [3]. These are international findings, not estimates for Uzbekistan. They indicate why a local study should examine transactions from application to decision and include residents who need help or use another channel.

5 Mechanisms Linking Governance to Service Quality

Figure 1 summarises the proposed causal chain. Shared rules and named owners make platforms usable across departments; the platforms allow teams to redesign processes; redesigned processes change a person’s experience. A missing link weakens the expected effect. For example, a common identity system may simplify sign-in, but it will not reduce repeated document requests if two agencies cannot legally or technically exchange a verified record.

Figure 1. Proposed pathway from digital governance arrangements to service quality



Source: author’s analytical synthesis based on [1–3, 8–11]. Arrows indicate proposed pathways, not measured causal effects.

5.1 Shared identity and interoperable records

A well-governed identity layer can make it easier to start a service and maintain a consistent case history. Interoperability can then let authorised agencies verify records



already held by government. The quality mechanism is a reduction in duplicate entry, document collection and inconsistent decisions. Its conditions are reliable source data, common definitions, lawful access, a record of which agency supplied each item, and a way to correct errors. Without them, data sharing can move the burden from one part of the state to another or propagate inaccurate information at scale.

The effect should be tested through the number of documents a user must supply, requests for the same fact across agencies, validation failures and corrections after a decision. These indicators should be observed by service type; a simple information request and an eligibility decision have different risk and evidentiary requirements. A universal “once only” rule without careful exceptions would be too blunt for contested or time-sensitive facts.

5.2 Process redesign and understandable interfaces

A portal produces a real benefit when agencies simplify the service rule and the workflow behind it. Clear eligibility language, an accessible mobile interface, saved progress and understandable error messages can increase the share of started applications that reach a valid submission. However, completion is only the first stage. If staff still re-enter information or route cases manually without clear ownership, end-to-end time may remain high. User research should therefore include applicants, frontline staff and people who abandoned the process.

Accessibility is an operational requirement, not an afterthought. The W3C Web Content Accessibility Guidelines 2.2 provide testable criteria for web content, including text alternatives and accessible authentication [12]. Portal audits should combine automated tests with task-based testing by people with disabilities and by users of low-bandwidth devices. Comparable assisted services should remain available for residents whose devices, connectivity or skills prevent independent online completion.

5.3 Transparency, redress and responsible automation

Status updates, published requirements and reasons for decisions reduce uncertainty, but transparency has practical value only if records are current and an



applicant can act on them. A visible appeal route can improve procedural fairness when the reviewing unit can change a wrong decision and explain its reasoning. Feedback forms should be linked to accountable service owners, a response period and an auditable resolution status, so comments become part of service redesign rather than a passive collection of ratings.

Rules-based automation may speed low-discretion checks; predictive tools can help triage cases. Both require traceable inputs, human review of contested outcomes and monitoring for unequal error rates. The OECD’s 2026 outlook notes that public-sector AI adoption has advanced faster than some evaluation and transparency practices [3]. For high-stakes eligibility decisions, an agency should document the decision rule, permit correction of source data, retain an escalation path and report performance by relevant groups. A quick response that cannot be explained should not count as a successful service.

5.4 Participation and accountable management

Citizen engagement adds information that administrative logs cannot provide, especially about confusing instructions, travel costs, informal help and why residents abandon an application. The World Bank treats digital citizen engagement as a separate GovTech area [2]. Engagement is useful when agencies close the loop: publish what users raised, what changed and what remains unresolved. Managers need a named owner for each service journey and joint objectives where several agencies must cooperate. Otherwise each institution may meet its internal target while the citizen still completes a fragmented process.

6 Measuring Quality and Testing the Propositions

Table 2 converts the framework into indicators that an agency could derive from event logs, case records, accessibility tests and short user surveys. A service must define a start event, a valid submission and a substantive outcome before calculating completion. Reports should separate service categories and show distributions rather than only averages: a short median can hide a long wait for a small group. Counts of



transactions and visits remain useful workload measures, but they are not substitutes for quality.

Table 2. Proposed service-quality indicators and safeguards

Dimension	Operational indicator	Interpretation or safeguard
Completion	Valid outcomes ÷ initiated cases over a defined period	Report abandonment and exclusions separately; distinguish successful submission from final decision.
Timeliness	Median and 90th percentile days from valid submission to decision	Pause rules and incomplete cases must be stated; compare like-for-like case types.
Administrative burden	Mean user-supplied documents and repeated fact requests per case	Audit whether duplication is legally required or caused by system fragmentation.
Reliability and fairness	Correction or reversal rate; substantiated complaint rate	Review reasons for errors and compare groups without exposing personal data.
Access and support	Task completion by channel and user group; accessibility test results	Include assisted channels and users who cannot start the online journey.
Responsiveness	Share of appeals resolved within standard time; user-rated clarity	Pair ratings with case outcomes and publish the response denominator.

Source: author’s operationalisation drawing on e-GovQual [8], OECD service guidance [9, 10] and WCAG 2.2 [12]. These are proposed indicators, not observed results.

Three testable propositions follow. P1: when record exchange replaces duplicate requests, otherwise comparable applicants will submit fewer documents and complete services faster, provided record accuracy is maintained. P2: when teams simplify forms using user research and offer assisted access, completion will improve without widening the gap between digitally confident and digitally excluded groups. P3: when applications have accurate status information and a working review route, complaints about uncertainty and unexplained decisions will fall, conditional on timely staff action. These



propositions may fail; that is why the accompanying indicators include error, appeal and equity measures.

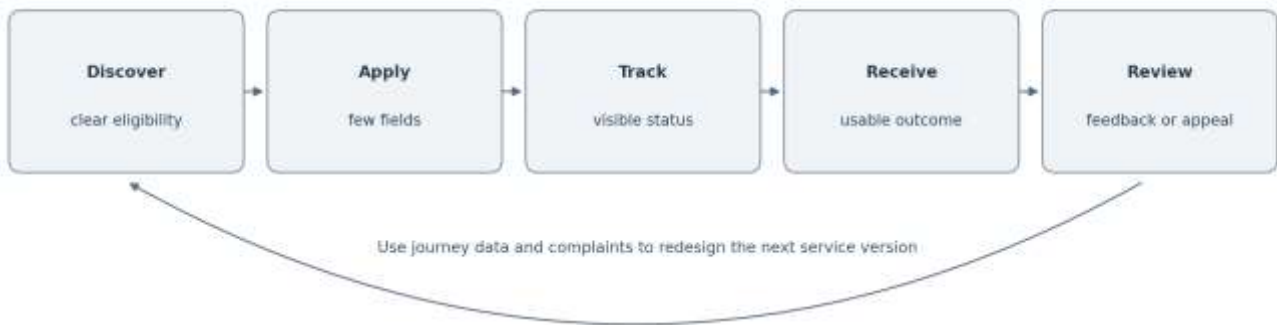
An evaluation in Uzbekistan could begin with several high-volume services from different sectors. For each, agencies should map the journey, establish six to twelve months of baseline measures where available, and document exactly when an intervention starts. If comparable services or regions adopt a change at different times, an appropriately checked difference-in-differences design may help distinguish the reform from seasonality and broader trends. Where comparison groups are unavailable, interrupted time-series analysis and qualitative follow-up could still reveal patterns, but causal claims would be narrower. Privacy-preserving linkage and an independent review of definitions are essential; no personal case data are needed in a public dashboard.

7 Implementation Priorities for Uzbekistan

A workable programme should select a few journeys in which residents currently carry information between offices, then assign one lead team to each journey. The team should map legal requirements, identify which facts government already holds, record failure points and agree a common case identifier. The first redesign may be modest: remove a redundant document, write a clearer eligibility page or introduce a reliable status notification. Improvement should be judged from the user’s completed outcome, not the number of screens released.

Figure 2 illustrates the measurement loop. Discovery and application matter, but tracking, receipt and review belong to the same service. At each stage, the team can observe where users need help and which cases remain unresolved. Feedback and appeal data should return to the service owner for a documented release decision. A monthly review that includes frontline staff and users from different access groups can check whether a change improved the whole journey or shifted the burden.

Figure 2. End-to-end service journey and improvement loop



Source: author’s proposed service journey, informed by the OECD human-centred service framework [9, 10].

The second priority is to set common service standards across agencies: plain-language content, accessible interfaces, clear decision times, reliable notifications and an identifiable route for correction. Shared standards make local innovation comparable and reduce the cost of each agency solving the same design problem. Procurement and internal performance reviews should ask for evidence of completed tasks and user testing. Training must include service managers and caseworkers as well as software specialists.

The third priority is public reporting with restraint. A concise dashboard can show completion, time distributions, accessibility findings and appeal outcomes by service. Before publication, definitions should be fixed, small-cell disclosure risks addressed and differences in case complexity explained. Agencies should publish both improvements and persistent failure points. That practice strengthens accountability while making it easier to decide which part of a process needs investment next.

8 Discussion and Limitations

The analysis offers a causal logic but does not estimate effects. Official service counts and international indices have different units of analysis and cannot be joined into an impact coefficient. The proposed indicators may also contain selection bias: satisfied users may answer surveys more often, and administrative logs omit people who never obtained access. For that reason, a full assessment should combine log data, independent usability testing, assisted-channel records and interviews with non-users. It



should state how each sample was recruited and avoid treating a convenience sample as representative.

The model also assumes that institutions can assign cross-agency responsibility and resolve disagreements over data definitions. This may require regulatory changes, resources and sustained managerial attention. Privacy, cybersecurity, auditability and non-digital access are not optional costs to be traded away for speed. Their presence may initially increase measured processing time while improving accuracy and legitimacy. Evaluation should therefore use a balanced set of outcomes and examine unintended consequences.

Measurement itself can change behaviour. A team assessed only on processing speed may close a case before the applicant receives a usable outcome; a team assessed only on satisfaction may avoid difficult cases or reach mainly the most digitally confident users. An audit should trace a sample of cases from first contact to final resolution, including corrected applications and appeals. Time measures should specify whether the clock stops while an applicant supplies missing information and should show the 90th percentile alongside the median. This makes delayed cases visible and limits the incentive to improve a headline number by redefining a case.

Cross-service comparison also requires care. A routine certificate can often be issued automatically, whereas a disputed benefit or permit requires evidence and human judgement. Quality standards can be common, but targets must reflect case complexity, legal safeguards and the consequence of a wrong decision. Service-level dashboards should identify those differences and publish data definitions. Independent user testing can then check whether an apparent statistical improvement corresponds to a simpler experience, particularly for users with disabilities, limited connectivity or little confidence in administrative language.

Future empirical work should test the proposed pathways in specific Uzbek regions and service categories. It could examine whether interoperability reduces repeated evidence requests, whether assisted access narrows completion gaps, and



whether an effective appeal channel changes perceptions of fairness. Urban–rural comparisons could reveal unequal local support. Such work requires protected case records, transparent sampling and a pre-specified account of possible confounders. The present paper supplies an evaluation framework rather than substituting conjecture for the required observations.

9 Conclusion

Digital governance can improve public services when common infrastructure enables simpler processes, staff remain accountable for decisions, and residents can complete and challenge a service through accessible channels. Uzbekistan’s documented expansion of online services creates an opportunity to test these mechanisms, but portal breadth and EGDI movement cannot demonstrate service quality on their own. The proposed framework links institutional arrangements to completion, timeliness, burden, reliability, access and redress. A small set of carefully evaluated service journeys would provide stronger evidence for scaling digital reforms than another increase in the number of listed services.

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