E-GOVERNMENT AND SMART GOVERNANCE AS MECHANISMS OF INSTITUTIONAL QUALITY IMPROVEMENT

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Abstract: Institutional quality, understood as the reliability, transparency and accountability of public institutions, is a decisive condition for economic performance and public trust. Digital government is often promoted as a remedy for weak institutions, yet the mechanisms through which it works remain unevenly specified. This article examines how e-government and smart governance can improve institutional quality. Drawing on recent cross-national evidence on electronic government and corruption, on conceptual work on smart governance, and on the Worldwide Governance Indicators, the study develops an analytical account of three mechanisms: the reduction of administrative discretion through digital traceability, the expansion of citizen participation, and the strengthening of performance evaluation. The analysis shows that these mechanisms are conditional on the existing institutional environment. Using UN E-Government Survey data for Uzbekistan, the article argues that the gap between the strength of online services and the weaker human capital and telecommunications components points to where institutional reform must accompany technological investment. An analytical model linking goals, institutional capacity, digital tools, processes and evaluation is proposed. The study is conceptual and secondary-data based; its propositions require empirical testing.

Keywords: e-government, smart governance, institutional quality, transparency, accountability, corruption control, digital public administration, Uzbekistan.

INTRODUCTION

Institutional quality has moved to the centre of development debates over the past two decades. Rules that are applied predictably, officials who are answerable for their decisions and public services that citizens can reach without bribery shape investment, growth and the legitimacy of the state. Research built on the Worldwide Governance Indicators (WGI) has made it possible to compare countries on dimensions such as voice and accountability, government effectiveness, regulatory quality, rule of law and control of corruption [4]. These measures show that institutional weakness is persistent and that improvements are slow.

Digital government has been promoted as a way to accelerate such improvements. Electronic systems for tax filing, procurement, licensing and citizen requests reduce face-to-face contact between officials and users, and they leave records that can be audited. Yet a technological system does not change institutional behaviour on its own. A portal that accepts applications can still be bypassed if officials retain the power to delay, reclassify or reject them outside the system. For this reason, the question is not simply whether e-government is adopted, but through which mechanisms it affects the quality of institutions.

The literature has begun to answer this question. Martins, Veiga and Fernandes [1] use data from more than 170 countries for 2002 to 2017 and find that e-government is associated with lower corruption, with the effect concentrated in the middle of the corruption distribution and stronger in countries that are not high-income. Conceptual work on smart governance adds a second strand. Rodríguez Bolívar and Meijer [2] identify the elements, aspired outcomes and implementation strategies of smart governance, while Gil-Garcia, Zhang and Puron-Cid [3] point out that the term 'smartness' in government still lacks an agreed definition. The two strands are rarely combined. Studies of e-government tend to measure outputs such as service availability, while studies of institutional quality rarely specify the digital channels through which institutions change.

This article addresses that gap. It asks how e-government and smart governance can improve institutional quality, which mechanisms carry the effect, and under what conditions these mechanisms operate. Uzbekistan provides a useful case. Its position in the United Nations E-Government Development Index has risen considerably in recent years, which makes it a relevant context for examining whether improvements in digital capacity are matched by improvements in the institutional environment.

LITERATURE REVIEW AND METHODOLOGY

Institutional quality is a multidimensional concept. In the WGI framework it covers six aggregate dimensions, built from 35 underlying data sources that record the perceptions of experts and survey respondents across 214 economies for the period 1996 to 2023 [4]. The authors emphasise that the aggregates carry margins of error and that differences between countries should be interpreted with those margins in mind. This caution is important for any study that links a policy change to a movement in a governance score, because short-term changes are often within the range of measurement uncertainty.

The empirical work on e-government and corruption is the closest precedent for the present analysis. Martins, Veiga and Fernandes [1] report a robust negative association between e-government and corruption across alternative indicators and estimation techniques. Their finding that the effect is strongest between the 0.3 and 0.8 quantiles of the corruption distribution is especially informative. It suggests that digital tools have the most room to change behaviour where corruption is widespread but not entrenched to the point where the formal system is captured. At the same time, the greater effect in non-high-income countries implies that the institutional starting point matters: the same tool produces different outcomes depending on how much discretion officials hold and how much independent oversight exists.

Smart governance extends this logic from individual services to the design of the state. Rodríguez Bolívar and Meijer [2] combine a systematic review of the literature with the perceptions of representatives of European local governments. Their model treats smart governance as a set of arrangements that link implementation strategies with desired outcomes, rather than as a bundle of technologies. Gil-Garcia, Zhang and Puron-Cid [3] reach a similar conclusion from a different direction. They argue that smartness should be understood as a multidimensional property of government, and they note that public managers control some of these dimensions directly, while others are outcomes they can only influence. This distinction is central to institutional analysis, because it separates what an agency can decide from what it can only hope to achieve.

The methodology of this study is analytical and synthetic. No primary survey was conducted. The argument rests on three sources of secondary evidence: the empirical findings of Martins, Veiga and Fernandes [1] on e-government and corruption; the conceptual framework of smart governance developed by Rodríguez Bolívar and Meijer [2] and Gil-Garcia, Zhang and Puron-Cid [3]; and the governance indicators and national digital statistics reported by Kaufmann and Kraay [4] and the United Nations [5]. The aim is to derive propositions about mechanisms and conditions, which can then be tested in future work. The analysis avoids treating any single index as a measure of causation.

RESULTS AND DISCUSSION

The synthesis points to three mechanisms through which e-government and smart governance can improve institutional quality. The first is the reduction of administrative discretion. When a permit, tender or benefit application is processed within a system that records each step, the official's freedom to act arbitrarily narrows. The record does not eliminate corruption, but it raises the cost of concealment and makes decisions open to later review. This is consistent with the negative association reported in [1], and it explains why the effect appears in the middle of the corruption distribution: where discretion is large but not fully captured, traceability has the greatest marginal effect.

The second mechanism is the expansion of participation. Smart governance, as conceptualised in [2] and [3], includes channels through which citizens can monitor services, submit complaints and take part in decisions. Participation changes institutional quality only when the complaints are answered and when the answers can be checked. A feedback portal that receives reports without a response obligation may increase the volume of information without improving accountability. The quality of the institutional response therefore determines whether participation has an effect.

The third mechanism is evaluation. Smart governance depends on the ability to measure outcomes and feed the results back into decisions. Gil-Garcia, Zhang and Puron-Cid [3] stress that outcomes are often beyond the direct control of managers, which means that evaluation must track progress over time rather than judge individual agencies by a single indicator. The WGI experience shows the same problem at the national level: aggregate indicators are informative, but they are slow to move and subject to measurement error [4]. Digital systems can generate more frequent data, yet more data do not automatically produce better judgement.

These mechanisms are conditional, and the conditions are institutional. The finding that e-government is more effective in non-high-income countries [1] should not be read as a general claim that digital tools are more useful where institutions are weakest. It indicates that the marginal return to digitalisation depends on how far the existing system has moved from a state of discretionary control. Where legal rules are clear and courts function, digital systems mainly reduce transaction costs. Where rules are unclear, the same systems can become a new point of control, shifting discretion from the counter to the database administrator.

The case of Uzbekistan illustrates this conditionality. According to the United Nations E-Government Survey 2024, Uzbekistan ranked 63rd of 193 countries, with an E-Government Development Index value of 0.7999 [5]. The sub-indices, however, are uneven. The Online Services component placed the country 59th and the E-Participation component 53rd, while Telecommunications Infrastructure was 68th and Human Capital 66th [5]. The contrast

suggests that the supply of digital services has advanced faster than the underlying conditions that allow citizens and officials to use them effectively. Connectivity and skills are the basis on which traceability and participation rest. If they lag, the service layer may be well developed while the feedback loops that improve institutions remain weak.

On this reading, the policy implication is not to add further online services as an end in itself. It is to align service development with the reform of the decision rules that services are meant to support. Rules on delegation, publication of decisions, complaint handling and performance review need to be specified in the same process that designs the digital platform. Without this alignment, digital systems risk improving the appearance of government without changing how decisions are made.

On the basis of this synthesis, an analytical model is proposed. It consists of five interrelated components:

1. Goal component: defining the institutional outcomes the system is meant to improve, such as predictability of decisions, reduced discretion and responsiveness to complaints.

2. Institutional capacity component: assessing the legal rules, oversight bodies and skills that determine how digital tools are used.

3. Digital tools component: selecting services, data systems and participation channels that match the goals and the capacity identified.

4. Process component: redesigning decision procedures so that records, deadlines and review mechanisms are built into workflows.

5. Evaluation component: tracking outcomes over time with indicators that separate what managers control from what they can only influence [3], and feeding results back into the goal component.

The model is deliberately general. Its purpose is to make explicit the links that are often assumed in discussions of digital government, so that they can be examined in specific settings and tested against data.

CONCLUSION

This article has argued that e-government and smart governance improve institutional quality through identifiable mechanisms: reduced administrative discretion, expanded participation and more systematic evaluation. The effects are conditional on the institutional environment, and the strongest gains are likely where the existing system allows discretion but has not yet been fully captured [1]. Digital capacity is a necessary element of reform, but it is not sufficient. The Uzbek case shows that improvements in online services must be matched by advances in telecommunications, human capital and the rules that govern decisions [5].

The study has clear limitations. It is based on secondary evidence and does not test the proposed model with primary data. The WGI measures are perception-based and carry margins of error [4], and the cross-national findings on e-government may not transfer directly to a single country. Future research should combine panel data on digital services with institutional indicators, and should use case studies to observe how discretion changes when specific procedures are digitised. Such work would show whether the mechanisms identified here operate as described and how large their effects are in practice.

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