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E-Governance as a Tool of Good Governance: A Case Study of Dehradun, Uttarakhand

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Abstract: Governance has become a vital tool for better governance, particularly in the hilly and geographically constrained regions like Uttarakhand. The present work endeavors to study the relationship between e-governance and good governance in Dehradun. The concept of good governance has been defined in terms of transparency, accountability, participation and rule of law. The study adopts a mixed-method approach by combining institutional study with primary data based on survey of 80 respondents. The study found that the awareness of e-governance services is high (82%); however, the use of e-governance services is low (64%) and the use is not regular. User satisfaction is moderate (mean score: 3.6), with delays in grievance redressal being a major concern. Digital platforms have improved greatly the traceability, control and transparency of administrative processes. However, their contribution to the strengthening of participatory governance and public accountability remains limited. Findings show technology has aided administrative efficiency and control but not the pace of citizen engagement in governance processes. In some cases this has even generated new forms of opacity and power imbalances between institutions and citizens. The study concluded that technological development alone would not ensure good governance without the support of institutional reforms, increased public participation and citizen-oriented approaches.
Keywords: E-governance • Good Governance • Dehradun • Uttarakhand • Transparency • Accountability

Introduction

Governance in political life is not merely about administrative efficiency but an ongoing dialogue between authority and citizens where legitimacy is continuously built, bargained or contested. Governance in classical terms is conceptualized as a multi-dimensional process of political, economic and administrative authority and the mechanisms through which individuals articulate and exercise their rights and interests (UNDP 1997; UNESCAP 2009). "Good governance" is seen within this framework as a normative ideal based on principles such as transparency, accountability, participation and rule of law (UNESCAP 2009; OECD 2017). These principles have important political implications as they place limits on power, make decision-making processes transparent, enable justification and enable citizens to question, and challenge, outcomes (Bovens 2007; India Code 2005). Governance is increasingly assessed in contemporary public administration not only with respect to efficiency but also with respect to these wider normative dimensions (Grindle 2004). E-governance is a closely related phenomenon to improve governance systems with digital technologies (Fountain 2001). E-governance is considered as a means to improve transparency and administrative efficiency through the delivery of online services, increased access to information and redress of grievances (World Bank, 2021). However, the literature cautions that technology by itself may not necessarily lead to better governance outcomes in the absence of institutional capacity and accountability mechanisms (Heeks 2005; Fountain 2001). In fact, digital systems are often embedded within bureaucratic hierarchies and discretionary practices. Hence, e-governance should be understood not as a technical innovation but as

a political and administrative process driven by issues of citizen access, control and voice (Grindle 2004; OECD 2017). This is especially true for geographically isolated regions such as Uttarakhand where the terrain and limited access create challenges for traditional modes of governance and digital platforms offer an alternative mode of service delivery for public services. The administrative capital of the state, Dehradun, has launched a number of e-governance initiatives that include ServicePlus portals, CM Helpline 1905 and Integrated Command and Control Centres. The Doon Integrated Command and Control Centre (DICCC) established under the aegis of the Smart Cities Mission is a one-stop platform to track urban services through real time data, dashboards and surveillance mechanisms (DARPG 2021; DSCL 2021).

Besides, online service delivery portals facilitate citizen access to services, tracking of applications and digital certificates (NIC 2026; India Code 2011) and grievance redressal mechanisms such as CM Helpline 1905 seek to deliver time-bound responses and expand the administrative reach to remote areas (Government of Uttarakhand 2019; DARPG 2026). However, these developments necessitate a serious reflection on whether such initiatives are leading to a more participatory level of democratic governance or mostly to the strengthening of administrative coordination and monitoring. Digital systems improve traceability and visibility but their effect on participation and accountability remains ambiguous. This paper seeks to address these issues by assessing e-governance initiatives in Dehradun with regard to the fundamental principles of good governance with a particular emphasis on their implications for transparency, accountability, participation, and rule of law. Objectives of the Study

The present study is intended to study e-governance in Dehradun not only as a technological intervention but also as a political and administrative process that is shaping state-citizen relations.

Objectives

1. To study the political and institutional aspects of e-governance in Dehradun with specific reference to state capacity, bureaucratic practices and citizen-state interactions (Fountain 2001; Heeks 2005).
2. To assess major digital governance initiatives in Dehradun in relation to the core principles of good governance, namely transparency, accountability, participation and rule of law.
3. To examine the emerging tensions between "smart" governance mechanisms—such as surveillance, monitoring, and data-driven administration—and democratic values including citizen engagement, openness, rights, and due process.

Review of Literature

The significance of the UNDP framework for governance is that it links development with the legitimacy of politics. Good governance is also said to be participatory, transparent, accountable and promotes the rule of law (UNDP 1997; UN press 1997). UNESCAP also states that governance for development and democracy is a question of practical politics: how decisions are made, how they are implemented and how they are contested.

UNESCAP also states that while elections can guarantee participation for some, they are inadequate to guarantee it for the most marginalized (UNESCAP 2009; UNESCO 2005). These statements set a baseline for e-governance. If a digital system speeds up the provision of a service and at the same time reduces the service users rights and/or reduces the users voice, and it also reduces the users access to a system that is impartial, the system does not enhance good governance (UNDP 1997; UNESCAP 2009).

The other most relevant body of work is that of open government scholarship and policy. The definition the OECD uses the most describes open government as "a culture of governance which encourages the principles of

transparency, integrity, accountability and participation of all stakeholders" (OECD 2017; OECD 2020).

Most importantly, OECD evaluations warn us to avoid the instrumental view of e-government: simply publishing government services online does not mean that there are opportunities for meaningful participation and feedback, nor are there accountability mechanisms (OECD 2017; OECD 2018).

For Dehradun, this distinction is politically vital: a city portal may just digitize services, but beyond e- governance, democratic legitimacy means that citizens should be able to comprehend the decisions made and the prioritization of initiatives, particularly in urban governance where the allocation of resources is politically and socially contested (OECD 2017; UNESCAP 2009).

The third stream looks at institutions and accountability, not just at technology. Fountain states that digital governance is bound to fail if institutions do not change; thus, she argues that we cannot realize the promise of the digital state unless "the rigid structures of the contemporary bureaucratic state change" (Fountain 2001; Heeks 2005).

Heeks (op cit) also prioritizes management, risk, and "political and ethical issues" as most important to the success of e-government, rather than as an afterthought. On the issue of accountability, perhaps the most comprehensive definition is that "accountability is a relationship between an actor and a forum" where the actor is obligated to account for and explain actions (Bovens 2007; OECD 2017).

All reforms cannot be implemented at the same time, and governance reforms tend to be too broad and ambitious as observed by development scholars like Grindle who (2004 2007) contends that governance reforms must be prioritized and sequenced gradually in order to be effective. This view is the foundation of the present study. The paper argues that e-governance in Dehradun should not be seen merely as a process of modernization through technology. Rather it is a wider transformation of the management and allocation of information, administrative authority and institutional control.

Previous studies have also found that e-governance can enhance administrative efficiency, lower transaction costs and bring more transparency to public administration (Fountain 2001). Others argue that success of digital government depends on the strength, operation and technological adaptation of institutions (Heeks 2005). Accountability in governance systems is about answerability and enforceability, which digital mechanisms alone may not necessarily guarantee (Bovens 2007). More recently, digital governance has been shown to foster open government and citizen participation (Meijer et al 2012; OECD 2020).

Yet, issues around data governance, surveillance and digital resource inequalities have come up (Janssen & van den Hoven 2015). Despite these contributions, empirical research on the political implications of e-governance at the city level is still rare, especially in the Indian hill regions. This paper seeks to fill this gap by combining survey-based evidence with institutional analysis in the context of Dehradun.

Research Gap

The existing literature suggests that e-governance can improve efficiency and reduce transaction costs while enhancing transparency (Fountain 2001). However, the success of e-governance initiatives depends on the institutional arrangements and the governance capacity (Heeks 2005). Accountability frameworks focus on answerability and enforcement mechanisms in governance arrangements. Digital governance has been explored in recent research for its potential to promote citizen participation and open government practices (Meijer et al. 2012; OECD 2020). At the same time, an increasing body of research points out concerns about data governance, surveillance and access inequalities (Janssen & van den Hoven 2015). However, so far the observations have not been supported by empirical studies on the

political ramifications of e-governance at the local level, particularly in the Indian hill regions.

This study attempts to fill this gap by integrating empirical survey data and institutional analysis in the context of Dehradun. The results indicate that e-governance initiatives in Dehradun have widened access to information and services and enhanced administrative transparency. However, the usage is low, and user satisfaction points to a moderate trust in the system's functioning. Significantly, the digital platforms appear to have done more to improve administrative oversight than to enhance citizen participation. Although users can access services and submit complaints, opportunities for participatory involvement in decision-making are limited. This indicates an incomplete transition from digital access to participatory governance.

Research Methodology

The study is a mixed-method case study, which incorporates a qualitative institutional analysis with a small quantitative component to examine the implementation and impact of e-governance initiatives in Dehradun. The principal focus of the study is on institutional processes, citizen experiences and governance practices in digital service delivery system

The study has used both primary and secondary data. Primary data were collected through a structured survey questionnaire from 80 respondents of selected urban and semi-urban areas of Dehradun district. The respondents were selected through purposive and convenience sampling techniques. Purposive sampling was used to select persons with prior awareness, exposure or experience with e-governance and digital public service platforms, which helped in collecting responses related to the study objectives. Convenience sampling was used to select respondents due to accessibility constraints and the exploratory nature of the study.

The sample size of 80 respondents was considered adequate to provide indicative and exploratory insights into citizen awareness, usage patterns and perceptions of e-governance services. Since this is an institutional case study and not a statistically representative large-scale survey, the focus is on analytical understanding and interpretive assessment rather than broad generalization of findings. The sample thus functions as a supporting empirical component to complement the broader institutional analysis.

Secondary data were collected from government reports, official portals, Smart City documents, grievance redressal systems and policy records related to e-governance in Uttarakhand, particularly the documentation associated with the Doon Integrated Command and Control Centre (ICCC). The legal and administrative frameworks like the Right to Information Act and Uttarakhand Right to Service Act were also reviewed to understand the regulatory basis of digital governance and citizen service delivery, similarly.

Methods of Analysis

The study was based on both quantitative and qualitative methods of analysis. The quantitative analysis was mainly carried out using descriptive statistical techniques like percentage distribution, frequency analysis and mean score interpretation to evaluate levels of awareness, accessibility, usage patterns and citizen perceptions regarding transparency, responsiveness, timeliness, ease of use and overall satisfaction with e-governance services. The qualitative part of the research was to understand how various governance mechanisms perform inside the e-governance framework. The study included examination of digital monitoring systems, grievance redressal processes, inter-departmental coordination and service delivery structures built under the Smart City program. This institutional analysis was used to examine wider concerns such as accountability, transparency, responsiveness and the changing character of administration in the context of e-governance changes (Fountain, 2001; OECD, 2017).

The whole analytical paradigm therefore integrates descriptive empirical data with interpretative institutional analysis to understand the success of e-governance in Dehradun more comprehensively. In the meanwhile, the study indicates certain limitations such as the relatively small sample size, the use of non-probability sampling techniques and the restricted geographical scope of the study. Therefore, the results are mostly suggestive and case-specific, and may not be entirely generalizable to the research environment beyond the current study.

The analysis of e-governance systems in Dehradun shows good progress in the accessibility and administrative efficiency. But there are still problems with accountability and participation. The study of e-governance projects in Dehradun is very much important to know the level of awareness, utilization, user satisfaction and challenges in the digital governance system. Results are presented systematically to identify the governance metrics of interest.From Table 1, we see that respondents are knowledgeable and using e-governance services.

Results and Discussion

Table 1: Awareness and Usage of E-Governance Services

Indicator	Percentage (%)
Awareness	82%
Usage	64%
Regular usage	38%

The awareness level was high (82%) indicating that digital governance initiatives have reached a large number of citizens. However, the actual usage was lower (64%) and only 38% of the respondents reported regular use of these services. Encouraging is the high level of awareness, but the gap between awareness and regular use suggests that the effective use of digital platforms may be hampered by usability issues, technical limitations or lack of trust. The large gap between awareness and use suggests that accessibility alone does not guarantee adoption, and indicates shortcomings in user engagement and system effectiveness.

Table 2 summarizes the levels of user satisfaction with e-governance services. The mean scores indicate that ease of use has scored the highest (3.9), i.e., the platforms are generally accessible and user friendly for the respondents. Transparency has scored a moderate (3.5) and timeliness has scored the lowest (3.2), implying delays in service delivery and grievance redressal. The average score of 3.6 indicates a moderate level of acceptance of e-governance systems by the users.

Table 2: User Satisfaction Levels

Parameter	Mean Score
Ease of use	3.9
Transparency	3.5
Timeliness	3.2
Overall satisfaction	3.6

The low score for timeliness in particular indicates that procedural delays continue to be a problem for e-governance systems even after digitization, implying that the mere adoption of technology does not resolve the administrative inefficiencies.

Challenge Percentage (%) Slow responses 31% Technical problems 28% Lack of awareness 22% No follow-up 19% The most common challenge was slow response (31%), followed by technical problems (28%), lack of awareness in some sections of the population

(22%) and lack of follow-up mechanisms (19%) (Table 3). The results reveal the presence of structural and operational challenges in digital governance systems.

Table 3: Challenges faced by the users in accessing and using the e-governance services

Issue	Percentage (%)
Delayed responses	31%
Technical issues	28%
Lack of awareness	22%
No follow-up	19%

Analysis and Interpretation

The analysis of e-governance in Dehradun indicates a significant relationship between transparency of service and transparency of administration. Different systems like the Uttarakhand Service Plus portal provide citizen-centric services like tracking of application and digital certificates which increase transparency at the service delivery level (NIC 2026; India Code 2011). On the administrative level, systems like Doon Integrated Command and Control Centre (DICCC) are equipped with centralized dashboards for real-time monitoring of urban functions (DARPG 2021; DSCL 2021).

This dual visibility structure allows for oversight by managers, and may also lead to faster corrective action, and thus lower discretionary inefficiencies (Heeks 2005; OECD 2017).

However, it also raises issues of differential access to information, as such monitoring systems are not necessarily publicly available or easy to interpret, and hence their democratic potential is limited (OECD 2017; India Code 2005). In this context, accountability is largely facilitated through digital grievance redress mechanisms. The administrative reach to remote areas supports formal mechanisms to lodge, track and escalate complaints such as the CM Helpline 1905 (Government of Uttarakhand 2019). These are accountable systems with identifiable actors, formal procedures and traceable responses (Bovens 2007).

However, empirical evidence suggests that response delays are a major concern, and this points to a breakdown in effective accountability even with the deployment of digital systems. The ongoing delays suggest that procedural mechanisms are not enough without institutional capacity and political will. There is a risk of 'procedural compliance' where performance is measured by closure rates rather than the substantial resolution of grievances (Grindle 2004; Heeks 2005). Technical aspects expose the absence of infrastructure and user support systems. Dehradun's e-governance architecture makes access to services and grievance submission the main conduits for citizen engagement. The development of integrated platforms such as CPGRAMS and state portals multiplies access points for round-the-clock interaction, lowers transaction costs, and increases the scope of governance (DARPG 2026; NIC 2026; Government of Uttarakhand 2026).

But empirical evidence suggests moderate use of the platform and a low regularity of contact, indicating that participation remains largely formal. These platforms are used to communicate with the state but there is little room for citizens to influence policy priorities or decision-making processes. This is in line with a "citizen-as-user" paradigm in which citizen engagement is limited to service consumption and does not extend to active democratic participation (OECD 2017; Grindle 2004). Strengthening the rule of law dimension, digital governance is based on enforceable legal frameworks. Citizens have formal rights to information and to receive time-bound services through the Right to Information Act and the Uttarakhand Right to Service Act (India Code 2005; India Code 2011). Digital systems support the

implementation of such rights by providing tools for monitoring, tracking and compliance. However, the increased use of surveillance-based tools and automated monitoring systems, raises new challenges. However these mechanisms need to be balanced with safeguards on due process, transparency in decision making and accessible grievance and appeal mechanisms (UNESCAP 2009; Fountain 2001). Overall the findings suggest that e-governance initiatives in Dehradun have resulted in transparency and administrative efficiency through better access to services and digital traceability. However, limited regular use and moderate levels of satisfaction indicate that these systems have not fully translated into effective citizen engagement.

The continued presence of delays, technical constraints and weak follow-up mechanisms point to the continued presence of institutional inefficiencies within the digital frameworks. More importantly, the results also point to an emerging imbalance: while digital governance significantly strengthens the state's monitoring and control capacities, it is less effective in enhancing participatory governance. Hence, e-governance in its present form is more of an instrument of administrative optimization than a mechanism of democratic engagement. The study results indicate that the impact of e-governance in Dehradun can be understood in terms of three interrelated dimensions of visibility, traceability and enforceable rights.

Together these three dimensions determine the extent to which digital systems provide good governance .Centralized monitoring systems like Doon Integrated Command and Control Centre (DICCC) ensure visibility by integrating real-time data and providing a holistic view of urban operations. Such systems enhance the administrative capacity through enabling continuous monitoring and timely corrective actions (DARPG 2021; DSCL 2021). Better procedural transparency and less uncertainty in service delivery are achieved through digital service delivery platforms mapped to application, grievance and workflow processes (NIC, 2026; DARPG, 2026). Embedding these digital mechanisms in legal frameworks like the Right to Information Act and the Uttarakhand Right to Service Act creates enforceable rights and creates rights-bearing claimants to time-bound services (India Code 2005; India Code 2011).

This structural insight is supported by empirical evidence. Awareness of e-governance systems is high but continued and frequent use of them is relatively low. Moderate levels of satisfaction, frequent delays and technical difficulties suggest that the potential benefits of digital systems have yet to be realised in practice. Weak follow-up mechanisms and delays show that institutional inefficiencies are still present in the digitized setting and thus reduce the effectiveness of accountability mechanisms. In such cases, digital platforms may be utilized for procedural compliance rather than substantive governance reform (Grindle, 2004; Heeks, 2005). More broadly, the Dehradun case represents a major political paradox. E-governance systems increase the visibility and co-ordination of the administration. But these do not necessarily increase the transparency from the citizen's point of view. Dashboards offer a 'bird's-eye view' of governance that increases the monitoring and control capacity of the state, often better than citizens' access, interpretation or interrogation of governance processes (DARPG 2021; OECD 2017).

This creates a situation of asymmetrical transparency, in which citizens are becoming increasingly visible to the state, while the internal workings of the state are only partially visible to the public.In this way, the participation of the citizenry is mainly formal. Such channels may provide citizens with access to services and the right to file complaints but are less conducive to meaningful participation in decision-making or policy development and the dominant mode of interaction becomes that of the "citizen-as-user," not an active participant in governance. It is a symptom of a larger phenomenon in digital governance, where administrative efficiency outpaces democratic

deepening.Rather than dismissing digital government, we need to democratise it to redress such imbalance. This means designing public dashboards that are accessible and user friendly, disclosure mechanisms that are transparent, digital records that can be audited and appeal systems that are robust and based on the rule of law (UNESCAP 2009; Bovens 2007).

Reforms should be consistent with local administrative capacity and institutional realities as well. Echoing the notion of "good enough governance", the aim should not be digitization for the sake of digitization, but the creation of governance systems that strike a balance between efficiency and accountability and participation (Grindle 2004).

Conclusion

The present study reveals that the e-governance initiatives implemented in Dehradun have achieved considerable success in improving access to public services and enhancing administrative transparency, efficiency, and traceability. By digitizing service delivery systems and facilitating the flow of information, these initiatives have increased the visibility and accessibility of governance processes for a large section of the population. The relatively high level of public awareness observed among respondents indicates that digital governance mechanisms have effectively reached citizens and created greater convenience in accessing government services. However, despite these improvements, the transformative potential of e-governance remains constrained by institutional bottlenecks, limited citizen engagement, and the widening gap between state capacity and public participation.

The findings suggest that while digital platforms have strengthened the procedural dimensions of governance, they have not substantially altered the deeper institutional dynamics of accountability and participatory decision-making. E-governance systems have largely enhanced the state's ability to monitor, manage, and track service delivery processes, thereby improving administrative efficiency. Nevertheless, these systems provide limited opportunities for meaningful citizen participation in governance. As a result, citizens often remain passive consumers of services rather than active participants in democratic processes. This indicates that the transparency introduced through digitalization is primarily procedural rather than participatory in nature.

The study further highlights a significant imbalance in the functioning of e-governance systems, particularly in hilly states such as Uttarakhand, where difficult terrain and geographic barriers make digital governance essential rather than optional. In such regions, e-governance has the potential to bridge physical distances and improve service delivery in remote areas. However, the promise of digital governance can only be fully realized when it is integrated within a broader framework of democratic accountability, institutional responsiveness, and citizen-centric governance.

To enhance the effectiveness of e-governance initiatives, there is a pressing need to strengthen feedback mechanisms, improve digital literacy, and ensure inclusiveness for marginalized and digitally disadvantaged groups. The transition from a technology-centric approach to an integrated governance framework requires policy reforms, administrative capacity building, and the development of participatory platforms that encourage citizen involvement in governance processes. Thus, although Dehradun has made significant progress in accessibility and transparency, the contribution of e-governance toward greater participation and accountability remains limited. The study therefore emphasizes the need for a holistic approach that combines technological advancement, institutional reforms, and active citizen participation to achieve comprehensive good governance (Grindle 2004; OECD 2020).

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