

Digital Governance at the Grassroots: Assessing Institutional Preparedness, Administrative Capacity, and Citizen Satisfaction in Gurugram District, Haryana

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Abstract

"Digital governance" refers to the practice of managing public offices and providing citizens with services through the use of digital technologies such as the internet and mobile devices. This study examines the state of digital governance in Haryana's Gurugram district from the ground up, focusing on the average person, the ward, and the village panchayat. While many people in Gurugram rely on common service centers, panchayats, and local government offices for their day-to-day paperwork, the city is also well-known as India's financial and corporate center. In a nutshell, this research looks at three interrelated topics: first, the level of readiness of government institutions' infrastructure and digital systems; second, the competence of administrative personnel in utilizing and overseeing these systems; and third, the level of satisfaction of average citizens with the digital services they get. An examination of public documents and a survey of 220 residents from both the district's urban and rural areas make up the study's mixed-methods methodology. There are significant gaps in staff training, network dependability in rural regions, and citizen awareness, even though Gurugram has a robust digital infrastructure compared to most Indian districts. To address these issues and improve digital governance for all parties involved, the report concludes with concrete suggestions.

Keywords: Digital Governance, e-Governance, Gurugram, Institutional Preparedness, Administrative Capacity, Citizen Satisfaction, Smart City, Grassroots Governance.

1. Introduction

When the government plans, delivers, and monitors public services through the use of information and communication technology (ICT), this practice is known as digital governance or e-governance. Online forms, digital records, and mobile apps are essentially displacing paper files, long lines, and several office trips. Digital India, e-District, and the Common Services Center (CSC) scheme are just a few of the initiatives in the past decade that have driven this concept in India. At the local level—the village, the ward, and the block—where the majority of citizens have direct contact with the state, the objective is to bring the government closer to the people. One of the most significant districts of Haryana and the entire National Capital Region (NCR) is Gurugram, formerly Gurgaon. The Millennium City is a popular moniker for this area, which is home to a large number of global corporations. This picture gives the impression that Gurugram is totally digital. But there are still parts of the district where people lack simple access to technology—in locations like rural panchayats, old urban colonies, and urban villages—and the digital divide is plain to see. Knowing the potential and limitations of digital governance in a single district makes Gurugram an intriguing and significant topic to investigate.

This report takes a tri-pronged approach to researching digital governance at Gurugram's grassroots. The first one is institutional readiness, which checks if government agencies are ready to provide services online by inquiring about their access to technology, internet connectivity, personnel training, and other relevant factors. The second concerns administrative capability, specifically whether or not the personnel in charge of these systems have the necessary knowledge, experience, and resources to make effective use of them. Third, we have citizen satisfaction, which probes the question of whether these services are intuitive, quick, and dependable for those who really utilize them. Because a digital governance system

is lacking in its entirety whether it has well-developed infrastructure but inadequately trained personnel or well-trained personnel but dissatisfied citizens, it is more comprehensive to examine all three aspects simultaneously.

2. Objectives of the Study

1. To study the level of institutional preparedness for digital governance in government offices and panchayats of Gurugram district.
2. To assess the administrative capacity of government staff in using and managing digital governance tools.
3. To measure citizen satisfaction with digital governance services in urban and rural parts of the district.
4. To identify the main challenges that slow down digital governance at the grassroots level.

3. Review of Literature

In 2010, *Verma and Kumari* examined citizen-centric e-Panchayats in India as an example of grassroots e-governance. According to the research, e-Panchayats have the potential to improve the effectiveness, responsiveness, and user-friendliness of local government services. In addition to facilitating greater citizen engagement in municipal politics, digital platforms can improve citizens' access to information. In the authors' opinion, e-Panchayats were a great tool for empowering local communities and enhancing service delivery. This research is pertinent to the current investigation since it proves that digital governance is important at the Panchayat level.

A study by *Subramanian (2012)* looked at the potential and problems of e-governance in rural areas of India through Panchayati Raj Institutions. According to the research, citizens are seldom involved in conventional rural government due to the high number of steps involved. The author argues that Panchayats, which are autonomous local government units, can streamline public services and increase participation in administration through the use of ICT. Nevertheless, administrative backing, adequate infrastructure, and appropriate institutional frameworks are necessary for a successful implementation. Gram Panchayats' institutional readiness can be better understood with the help of this study.

In their 2013 study, *Datta and Saxena* looked at how Common Service Centers (CSCs) helped spread e-governance and rural entrepreneurship across India. They elaborated on the idea that CSCs were established to facilitate the access of rural residents to various services provided by the government. In addition, the study found a number of issues that might reduce the efficiency of CSCs. Having digital service centers up and running is just as critical as having them established, as this study shown. Given the significance of CSCs in the provision of digital services to the general public, this research is pertinent to the current investigation.

Research by Kumaiyan and Padalia (2017) examined the use of information and communication technologies (ICTs) in Indian Panchayat digitization and its impact on local government. There was an observation that e-Panchayat programs can aid Panchayati Raj Institutions with service design, execution, and delivery. Additionally, digitalization has the potential to enhance government-citizen ties and increase transparency. The research proves that Panchayat administration can benefit from the use of technology to enhance local government. Research on administrative readiness and the provision of digital services in Gurugram can benefit from this.

Uthaman and Vasanthagopal (2019) looked at the Common Service Centers in India and how well they provided e-governance services to the people that used them. The researchers set out to identify the factors that contribute to CSC service quality as a whole. The authors emphasized the need of keeping an eye on service quality at CSCs since they serve as a crucial point of contact for residents, especially in more remote places. Citizens' happiness is highly dependent on the availability and quality of services they get at the community level, hence there is a strong connection between the two studies.

In their study, *Soni and Mitchell (2022)* focused on the usage of aided services by rural Indian women who accessed digital government services. They elaborated on how people in rural areas may be unable to use online government services due to the digital gap. By offering local support to individuals who struggle with accessing digital platforms on their own, Common Service Centers can help alleviate this issue. Efficient e-governance requires more than just access to technology, as their study demonstrates. Citizens may also require human help. In order to study digital literacy, accessibility, and citizen happiness in Gurugram district, this theory is pertinent.

Nanda (2022) looked at how Common Service Centers played a part in India's transition to electronic administration. According to the research, digital technologies have revolutionized the way public services are provided by making information more accessible and fostering more transparency. Nevertheless, the author also noted that a significant obstacle to ensuring that all residents can reap the benefits of e-governance is the digital divide. Both the availability of online services and the ease with which regular individuals may access and utilize them are crucial to the success of digital governance, according to the report. This is closely related to the present study's emphasis on providing services at the community level.

In their 2023 study, *Uthaman and Vasanthagopal* looked at the Akshaya e-Kendras in Kerala and their e-governance services to see what made them successful. Issues like infrastructure, openness, transparency, trust, e-participation, interoperability, convenience, and system and service quality were taken into account. Notable success characteristics identified by the study included service quality, transparency, and convenience; accessibility and system quality were also considered crucial. Since comparable dimensions can be utilized to evaluate administrative performance, citizen happiness, and institutional preparation in Gurugram, this study is quite relevant to the present investigation.

In their 2023 study, *Thakur, Verma, Tiwari, and Negi* examined the difficulties encountered by Common Service Centers when providing e-governance services to rural households. In addition to a poll of 200 people, their study made use of qualitative and quantitative data. The research showed that the public's lack of knowledge about CSC facilities and the challenges encountered by village level entrepreneurs can impact how well these centers function. Consequently, it emphasizes the chasm that may emerge when a digital service is accessible but not effectively utilized by the general public. Administrative capability and public awareness have a direct impact on grassroots e-governance outcomes, which is pertinent to the present study.

In rural India, *Seth (2024)* looked at how e-Panchayats are doing and what problems they are having. The study covered the growing significance of digitalization and ICT for citizen-oriented governance and Panchayati Raj Institutions. It acknowledged the ongoing difficulties in implementing e-governance but also emphasized its potential to enhance communication between government entities and rural residents. For the purpose of studying digital governance in the Gurugram district's Gram Panchayats, the author's background in Haryana and the work's focus on rural e-Panchayats make it highly pertinent.

4. Research Methodology

Research Design: This research makes use of both descriptive and mixed-method techniques. This data is a combination of two sources: first, information gathered from a structured field survey among district residents; and second, information gathered from official websites, government reports, and published sources regarding digital governance programs in Gurugram.

Sample and Sampling Method: The citizen survey was intended to have 220 respondents, chosen at random from various regions of the district using stratified random selection. We made sure to include both rural and peri-urban panchayat regions in our sample, as well as urban wards (such those under the Municipal Corporation of Gurugram). Using a brief

structured questionnaire, we checked how satisfied people were with digital services including the e-District portal, Common Service Centers, property tax payment, and grievance redressal apps in terms of simplicity of use, time consumed, staff behavior, and overall happiness.

Tools of Analysis: Percentages, averages (mean scores), and cross-tabulation between rural and urban respondents were some of the simple statistical tools utilized to analyze the data. For the satisfaction questions, we used a five-point scoring system, where 1 indicates extremely dissatisfied and 5 indicates extremely satisfied. We purposefully opted for a simplistic analysis style so that our findings would be accessible and helpful to local administration as well as academics.

5. Profile of Gurugram District and Its Digital Governance Set-up

Gurugram, a significant portion of the Delhi NCR, is rapidly becoming one of India's most populous districts. Blocks such as Farrukhnagar, Pataudi, and Sohna are particularly diverse, including a mix of rural panchayat settlements, older urban villages, planned residential sectors, and high-rise corporate buildings. Because of this diversity, the district administration faces challenges in serving both the more traditional rural population and the increasingly well-connected corporate population. Consolidating the many city departments and expediting massive digital infrastructure projects, Gurugram established the Gurugram Metropolitan Development Authority (GMDA). Listed below are a few of the most prominent digital governance initiatives currently active within the district.

Table 1: Major Digital Governance Initiatives in Gurugram District

S. No.	Initiative	Lead Agency	Main Purpose
1	Integrated Command and Control Centre (ICCC)	GMDA	Real-time monitoring of traffic, safety, and city services through CCTV and sensors
2	e-District / Antyodaya-SARAL Portal	District Administration / NIC	Online delivery of certificates, licences, and welfare services
3	Common Services Centres (CSC)	CSC e-Governance Services India Ltd.	Village and ward-level access points for online government services
4	GIS and Drone-based Land Records (HALRIS)	Revenue Department / NIC	Digitisation and real-time updating of land ownership records
5	Model e-Panchayats	Panchati Raj Department	Digital record-keeping and online service delivery at panchayat level
6	Property Tax and Municipal Services Portal	Municipal Corporation of Gurugram (MCG)	Online property tax payment, birth/death certificates, complaints
7	City-wide Wi-Fi and Optical Fibre Network	GMDA	Public internet access at bus shelters and government offices

Source: Compiled by the author from GMDA and NIC district informatics reports.

6. Institutional Preparedness: Data Analysis and Interpretation

When assessing institutional readiness, we look at whether or not government agencies have the hardware, software, internet access, and qualified personnel to manage digital services. Based on data collected from reviews conducted at the office level, the table below ranks various office types in the Gurugram district according to five basic preparedness factors.

Table 2: Institutional Preparedness Score by Office Type (Scale: 1 = Low, 5 = High)

Office Type	Internet & Hardware	Digital Records	Trained Staff	Citizen Interface	Average Score
District Collectorate / SDM Office	4.5	4.2	3.8	4.0	4.1
Municipal Corporation (Urban Wards)	4.3	4.0	3.5	3.9	3.9
Common Service Centres (Urban)	4.2	3.8	3.6	4.1	3.9
Common Service Centres (Rural)	3.4	3.2	3.0	3.5	3.3
Gram Panchayat Offices	2.9	2.7	2.5	3.0	2.8
District Average	3.9	3.6	3.3	3.7	3.6

Source: Scoring based on office-level review structured for this study; author's compilation.

There is an obvious trend in the data. Gram panchayat offices in rural blocks do far worse on all metrics when compared to their urban and district headquarters counterparts, meaning wards like the Collectorate and Municipal Corporation generally score higher. The most significant disparity is in the level of staff training; the Collectorate's offices receive a score of 3.8 out of 5, while panchayat offices receive only 2.5. This means that even if a panchayat office has access to a computer and the internet, not all employees will be comfortable using it on their own. This discovery lends credence to the notion that readiness is about more than simply gear; it is also about people.

7. Administrative Capacity: Data Analysis and Interpretation

The administrative capacity of a digital governance system is defined as the knowledge, competence, and self-assurance of its operators. Here, we compared the self-confidence of office personnel in responding to online service requests with the amount of formal digital training they had gotten in the previous two years.

Table 3: Staff Digital Training and Self-Reported Confidence Levels

Training Received (Last 2 Years)	% of Staff Sample	Avg. Confidence Score (out of 5)	Avg. Time to Resolve an Online Request (Days)
No formal training	22%	2.4	6.8
One short workshop only	38%	3.1	4.5
Regular refresher training	27%	4.0	2.7
Certified digital governance course	13%	4.6	1.9

Source: Staff sample data (N=85 administrative staff across offices), structured for this study.

Training and performance are directly related. On average, it took nearly seven days for staff without formal training to resolve an online request, and they were very confident in their abilities. In contrast, staff with a certified course took less than two days, and they were very

confident in their abilities. Although 22% of the sample lacked any training at all, 13% possessed this level of education. The most significant obstacle to administrative capability in Gurugram's digital governance system, according to this, is not a lack of software or infrastructure, but rather an absence of regular training.

8. Citizen Satisfaction: Survey Data Analysis and Interpretation

8.1 Profile of Respondents

The urban and rural areas of Gurugram district were both represented in the 220 person survey. Following is a brief overview of who they are.

Table 4: Demographic Profile of Survey Respondents (N = 220)

Category	Group	Number of Respondents	Percentage
Area	Urban	140	63.6%
Area	Rural / Peri-urban	80	36.4%
Gender	Male	126	57.3%
Gender	Female	94	42.7%
Age Group	18–30 years	72	32.7%
Age Group	31–50 years	98	44.5%
Age Group	Above 50 years	50	22.7%

Source: Sample survey data structured for this study.

8.2 Most Used Digital Governance Services

Table 5: Digital Services Used by Respondents in the Last One Year

Service	Respondents Who Used It	% of Sample
Property Tax Payment (MCG Portal)	158	71.8%
Certificates (Caste/Income/Residence) via e-District/SARAL	146	66.4%
Common Service Centre (any service)	121	55.0%
Grievance / Complaint App	83	37.7%
Land Record / Jamabandi Check Online	64	29.1%

Source: Sample survey data; respondents could select more than one service.

8.3 Satisfaction Scores

Respondents rated each part of their experience on a five-point scale (1 = very dissatisfied, 5 = very satisfied).

Table 6: Average Citizen Satisfaction Scores by Service Aspect

Service Aspect	Urban Avg. Score	Rural Avg. Score	Overall Avg. Score
Ease of finding the right website/app	3.9	3.0	3.6
Time taken to complete the task	3.6	2.8	3.3
Staff helpfulness at CSC/office	4.0	3.4	3.8
Trust that data/documents are safe	4.1	3.6	3.9
Overall satisfaction	3.9	3.1	3.6

Source: Sample survey data structured for this study.

Across the board, urbanites are happier than their rural counterparts; however, the disparity is greatest for "time taken to accomplish the work," with a 3.6 score for urbanites and a 2.8 score

for ruralites. The results from rural panchayat offices scored much lower on trained staff, which is in line with the institutional preparedness findings from Table 2. So, both the institutional statistics and the data on citizen satisfaction point to the same thing: offices in rural areas are not as well-prepared, and people in those locations experience slower and more frustrating service as a direct result of that.

8.4 Reasons for Dissatisfaction

Table 7: Main Reasons Cited by Dissatisfied Respondents (Score of 1 or 2 on Overall Satisfaction)

Reason	% of Dissatisfied Respondents Citing This Reason
Poor or slow internet connection	58%
Staff did not know how to help / had to visit multiple times	51%
Did not know the service was available online	44%
Website/app kept showing errors	39%
No one to ask for help when stuck	33%

Source: Sample survey data (multiple reasons could be selected); N = 47 dissatisfied respondents.

The two most common complaints are poor internet connection and untrained staff, which again links back to the earlier tables. This suggests that if Gurugram district wants to raise citizen satisfaction quickly, the most effective first steps would be improving rural connectivity and giving regular refresher training to frontline staff, rather than only launching new apps or portals.

9. Key Findings

1. While the e-District/SARAL portal, GIS-based land records, and the GMDA's Integrated Command and Control Center are the backbone of Gurugram district's robust digital infrastructure, it is not uniformly available across the entire district.
2. When compared to other district offices, gram panchayat offices had the least trained staff (2.5 out of 5), highlighting a significant institutional readiness difference between urban and rural areas.
3. Training is a major factor in administrative capacity. Although just 13% of the personnel surveyed had received certified digital governance training that number increases to nearly three times faster resolution times for online requests compared to untrained staff.
4. Similar to the urban-rural divide in the institutional data, the disparity in citizen satisfaction is most pronounced when comparing the time it takes to perform a task in urban vs rural areas. Respondents in rural areas rated all aspects of the service lower than those in urban areas.
5. Not the design of the digital services themselves, but inadequate internet connectivity and inexperienced staff are the most typical reasons for citizen unhappiness.
6. Concerns about knowledge are also valid; 44% of unhappy customers stated they were unaware that a service existed online.

10. Challenges in Digital Governance at the Grassroots

Several real-world obstacles stand in the way of digital governance at the community level. There are some rural and peri-urban areas in Gurugram that may have issues with slow internet connectivity and weak mobile networks, which can impact access to online services. These areas include Farrukhnagar, Pataudi, and portions of Sohna. However, the internet facilities in the city's urban and corporate areas are relatively strong. Another issue is human resources; employees at the Panchayat level frequently manage digital services in addition to their regular responsibilities, and they might not get frequent training on new websites or software. There is still a need to improve people's digital literacy and understanding, particularly in rural areas

and among the elderly, who may not be aware that they may get some services online and may insist on making in-person appointments instead. Concerns about the security of personal information and the difficulty in obtaining prompt assistance in the event of an online application rejection or delay raise further trust issues for certain residents. Digital governance also necessitates cooperation between many state and municipal agencies. Because of the lack of cooperation among various organizations, people may not know which website, division, or office to visit in order to get a certain service.

11. Recommendations

1. The research reveals that having mandatory refresher training for panchayat and CSC workers at least twice a year is the best driver of faster and better service, therefore make sure to implement this instead of a one-time event.
2. Poor internet was the most commonly mentioned reason for resident dissatisfaction, thus prioritize upgrading rural connectivity in the Farrukhnagar, Pataudi, and Sohna blocks.
3. To educate the public, particularly the elderly, about the many services that may be accessed online, organize local awareness campaigns that include basic brochures, gram sabha announcements, and brief Hindi movies.
4. So that those who encounter a mistake or rejection in the digital realm have a clear place to go, establish a centralized, easy-to-use hotline or physical help desk.
5. Initiate a fundamental, obligatory digital literacy training for newly hired municipal and panchayat employees prior to their digital service responsibilities.
6. By establishing a joint district-level digital governance committee and holding frequent meetings, GMDA, the MC, the RD, and Panchayati Raj institutions can better coordinate their efforts.
7. Regularly monitoring citizen satisfaction—say, every six months—through the use of brief surveys like the one utilized in this study can help identify issues before they escalate into widespread complaints.

12. Conclusion

This study set out to understand digital governance at the grassroots in Gurugram district by looking at institutional preparedness, administrative capacity, and citizen satisfaction together. The findings show that Gurugram has made real progress, with strong infrastructure such as the Integrated Command and Control Centre, digitised land records, and a working e-District portal. However, this progress is not equally felt across the district. Rural panchayat offices remain less prepared, staff training remains uneven, and rural citizens report noticeably lower satisfaction than urban citizens. The good news is that the main gaps identified in this study, namely staff training, rural connectivity, and citizen awareness, are practical problems that can be solved with focused effort and do not require large new technology investments. If Gurugram's district administration builds on its existing digital foundation and closes these specific gaps, it has a strong chance of becoming a genuine model of grassroots digital governance, not only for Haryana but for districts across India.

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