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Smart Governance for Rural India: Role of Central and State E-Panchayat Initiatives in Telangana

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ABSTRACT

Decentralization manifests the spirit of democracy in its totality. Panchayat Raj Institutions (PRIs) play a crucial role in rural development, acting as the primary channel for local governance and decentralized administration. However, these institutions face multiple challenges. E-Panchayat initiatives played a key role in transforming rural governance and overcoming the challenges. Researchers have examined their impact on transparency, administrative efficiency, and citizen engagement, revealing both successes and challenges. While studies indicate that e-Panchayats streamline service delivery and enhance participatory governance, regional disparities in digital infrastructure and awareness levels continue to influence their effectiveness . In this context the study analysed the implementation of central specific and state specific e-panchayat initiatives in 3 villages of Telangana.The study found that e-Gram Swaraj portal and Department-specific modules such as the Panchayat Secretary Mobile App and Supervisory App have contributed significantly to improving transparency, accountability, and efficiency in local governance. These technological interventions have improved monitoring and streamlined local administrative processes.

Keywords: Panchayat Raj Institutions, e-Panchayats, Efficiency, Transparency.

1. Introduction

In recent years, digital governance has emerged as a transformative force in rural India, facilitating transparency, efficiency, and improved service delivery in local administration. The introduction of Information and Communication Technology (ICT) in governance has significantly enhanced access to public services, especially in remote villages where bureaucratic inefficiencies have traditionally hindered development.

The National e-Governance Plan (NeGP), introduced by the Government of India, expalins the necessity of digitization in rural governance. This initiative aligns with the broader goal of Good Governance, ensuring that public services are delivered efficiently and equitably. Digital governance has also played a crucial role in reducing corruption by minimizing human intervention in administrative processes, thus increasing accountability at the grassroots level (Ali, 2020).

Furthermore, research highlights that e-Governance interventions improve citizen engagement by enabling participatory governance models. Studies have demonstrated that rural citizens are more likely to engage with local governance when they have digital access to schemes, benefits, and grievance redressal mechanisms (Rao, 2022).

Empirical studies show that the adoption of e-Panchayat systems leads to a significant reduction in processing time for applications and an increase in transparency due to digital record-keeping (Sharma & Gupta, 2021). Additionally, by integrating Geographic Information Systems (GIS) and real-time dashboards, these systems enable better decision-making at the village level.

2. E-Panchayat Initiatives in India and Telangana

2.1 Central Specific Applications:

The Ministry of Panchayati Raj (MoPR) is the Nodal Ministry to take up the challenge ofrolling out e-Panchayat with the help of National Informatics Centre (NIC). Based on assessment of the requirements and an understanding of the work flow at Gram Panchayat(GP), Block Panchayat (BP), District Panchayat (DP) and

State level and the linkages with the National government, MoPR-NIC has launched the Panchayat Enterprise Suite (PES)comprising 11 core applications to suit and cater to the various critical functionalities of Panchayat Raj system and build associated capacities of the PRIs for effective adoption of the e-Governance initiative.

Panchayat Enterprise Suite-PES

- LGD – (Local Government Directory) – (URL: https://lgdirectory.gov.in)
- GPDP Portal (Gram Panchayat Development Plan) – (URL: https://gpdp.nic.in)
- Online Audit Portal (URL: https://auditonline.gov.in)
- Citizen Charter Portal (URL: https://panchayatcharter.nic.in)
- Vibrant Gram Sabha Portal (URL: https://meetingonline.gov.in)
- Gram Manchitra Portal (URL: grammanchitra.gov.in)
- m-ActionSoft: Mobile Application
- Mission Antyodaya Mobile Application
- PFMS Portal (ULR: https://pfms.nic.in)
- SVAMITVA (Survey of Villages Abadi and Mapping with Improvised Technology in Village Areas)
- All the above applicatons are at present merged into e-Gramswaraj Portal (URL: https://egramswaraj.gov.in)

2.2 State Specific Application - (epanchayat.telangana.gov.in)

The Telangana Commissionerate of Panchayat Raj and Rural Employment (PR&RD Department) launched the e-Panchayat Citizen Portal with the goal of improving information and service delivery and transforming rural citizens. With the ability to inform, communicate with and conduct business online, the project targets all facets of Gram Panchayat services. The ePanchayat project aims to transform the Panchayat Raj Institutions (PRIs) into symbols of modernity, transparency and efficiency.

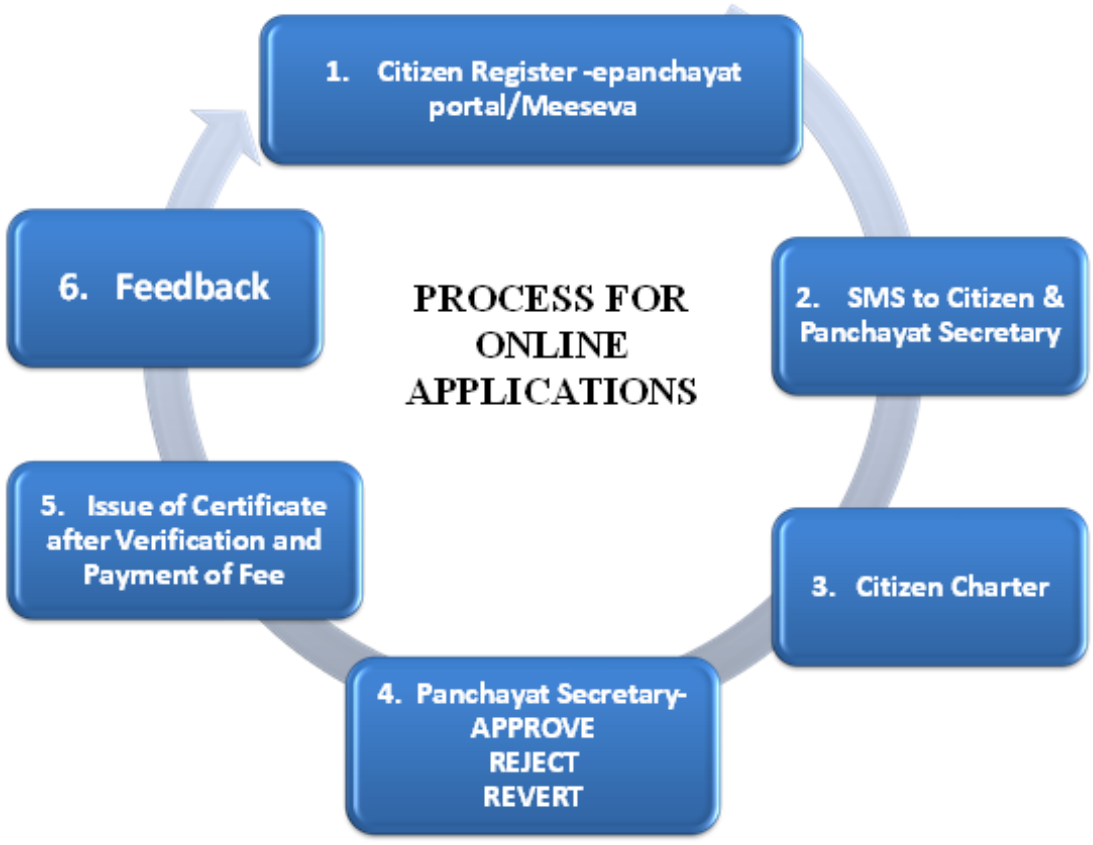
There are two types of services i.e.

1. Online Citizen Services
2. Department Module

1.Online Citizen Services - (epanchayat.telangana.gov.in)

Citizen Services like Building permission, Mutation, House Tax, Trade License, Cell Tower license, issue of Birth and Death certificates were made online. Citizens can apply through MEE SEVA or e -Panchayat portal.

a. Procedure to apply for Citizen Services Online



- Citizens can register through login in the portal and avail the required service.

- To apply for any service citizen has to select Apply option, fill the application form and upload relevant documents.
- Citizen can pay the fee through Citizen login itself or through Mee-Seva Centre.
- After the registration the citizen will get the Application Number through SMS to track the application status. The concerned Panchayat secretary will also get the details of the applicant through SMS.
- Through GP login the secretary will receive the service request, after the verification of the documents the GP will have three options i.e.
  a. Approve b. Reject c. Revert
- If it is approved GP will send the required fee to proceed further.
- Panchayat Secretary will upload the concerned Service Certificate with Stamp and Seal to the Citizen login on Successful payment of Fee.
  In the portal there is also provisiongive feedback on services availed by the citizen. There is also an option to Reset the password.

b) Unified Births and Deaths registration(UBD) (http://ubd.telangana.gov.in)

2.**Department Module:**

a) Monthly Activity statement (MAS):
b) PallePragathi Activities:
c) PS MOBILE APP:
d) Daily attendance of Panchayat Secretaries
e) Daily Sanitation Report (DSR) Mobile App
f) Mobile APP on Inspection of Gram PanchayatsApproved and Un-Approved Layout Details
g) House Tax Module
h) Web service with other Departments/Organisations
i) IFMIS:Integrated Financial Management and Information system

3. Literature Review & Research Methodology

3.1 Review of Literature

The role of e-Panchayat initiatives in transforming rural governance has been widely documented in academic literature. Researchers have examined their impact on transparency, administrative efficiency, and citizen engagement, revealing both successes and challenges. While studies indicate that e-Panchayats streamline service delivery and enhance participatory governance, regional disparities in digital infrastructure and awareness levels continue to influence their effectiveness .

3.1.1 Digital Transformation and E-Panchayat in Rural India

Ali (2020) underscores the significance of e-Panchayat initiatives as a digital transformation tool for Gram Panchayats, particularly in promoting transparency, accountability, and efficiency. His study highlights how bottom-up digital information exchange strengthens policy execution and financial oversight. Similarly, Sahu, Pradhan, and Netam (2021) emphasize the role of Digital Gram Panchayat Services in simplifying access to government welfare schemes, thereby increasing citizen participation and service accessibility. In a study specific to Kashmir, Dar (2022) explores how ICT-based governance has introduced a “SMART” (Simple, Moral, Accountable, Responsive, and Transparent) administrative framework. His research argues that digital governance reduces bureaucratic inefficiencies while making Panchayati Raj Institutions (PRIs) more inclusive and accessible to citizens.

3.12 State-Level E-Panchayat Implementation: Successes and Challenges

Several empirical studies have analyzed state-level implementation of e-Panchayat initiatives, providing insights into their regional effectiveness. In Andhra Pradesh, Rao (2022) conducted a case study in Prakasam District, gathering responses from 150 stakeholders, including local administrators and elected representatives. The findings indicate that e-Panchayat platforms have significantly improved service delivery by reducing bureaucratic delays and enhancing citizen engagement. However, the study also notes that digital literacy gaps among rural populations remain a key obstacle to effective adoption. Similarly, research on Maharashtra’s E-Gram Panchayat Management System (EGPMS) by Shelar et al. (2020) highlights that the web-based platform has been instrumental in providing remote access to Panchayat records, ensuring better data security and administrative efficiency. The study concludes that e-Governance systems have successfully minimized corruption while enabling government officials and citizens to interact more transparently.

In Maharashtra, Padave and Parulekar (2018) documented the success of digital governance in Kurle Gram Panchayat, where modern IT tools have been leveraged to streamline service delivery and reduce administrative bottlenecks. Their study suggests that such models improve decision-making efficiency and encourage greater citizen participation. Conversely, Rashid and Bansal (2017) examine e-Panchayat adoption in Jammu and Kashmir, particularly in Baramulla District, and highlight critical challenges related to inadequate internet connectivity and lack of skilled personnel at the Panchayat level. Their research stresses

the need for infrastructure investments and digital training programs to enhance e-Governance adoption in the region. Furthermore, a study by Ghatak and Ghatak (2002) on Panchayat reforms in West Bengal bring out the importance of decentralization in strengthening participatory governance. However, their findings also reveal that digital disparities continue to limit rural populations' access to e-Governance services.

3.1.3 Challenges in E-Panchayat Implementation

Despite the positive impact of e-Panchayat initiatives, multiple studies identify persistent challenges that hinder their full-scale adoption. Rashid and Bansal (2017) highlight that insufficient broadband connectivity in rural areas prevents seamless digital service delivery, making it difficult for Panchayats to function effectively. Infrastructure limitations remain a significant barrier, particularly in remote villages with poor network coverage. Additionally, Kumaiyan and Padalia (2017) argue that low digital literacy among rural populations reduces the usability of e-Governance platforms, limiting their effectiveness. The authors suggest that targeted digital literacy campaigns could help bridge this gap and increase adoption rates.

Kadam et al. (2020) further highlight the issue of limited awareness regarding e-Panchayat services among rural citizens. Their research finds that a substantial portion of the rural population remains unaware of the services available through digital platforms, leading to low utilization rates. To address this challenge, they recommend conducting large-scale community awareness programs to educate villagers about the benefits of e-Governance. Moreover, Malik (2008) discusses administrative resistance to digital transformation in Panchayati Raj Institutions. His study finds that bureaucratic inertia, coupled with a reluctance to transition from traditional administrative methods, has slowed the pace of e-Panchayat implementation in several states. Overcoming such resistance requires strong policy interventions, incentives for digital adoption, and consistent government support.

3.2 Problem Statement

Panchayat Raj Institutions (PRIs) play a crucial role in rural development, acting as the primary channel for local governance and decentralized administration. However, these institutions face multiple challenges, including administrative inefficiencies, rampant corruption, a lack of transparency and accountability, and limited public participation in developmental activities. These issues hinder the effectiveness of PRIs in delivering essential services and implementing government initiatives at the grassroots level.

The adoption of Information and Communication Technology (ICT) has emerged as a potential solution to address these persistent governance challenges. Many countries worldwide, including India, are embracing ICT-driven governance models to enhance service delivery, operational efficiency, and citizen engagement. E-Governance initiatives, such as the e-Panchayat project, seek to modernize PRIs by streamlining administrative processes, improving financial management, and facilitating transparent decision-making. However, gaps in infrastructure, digital literacy, and policy implementation continue to impede their full-scale adoption. Addressing these gaps is imperative to ensure the successful integration of e-Governance in PRIs, ultimately fostering a more accountable, participatory, and efficient rural governance system.

2.3 Hypothesis:

The implementation of **e-Panchayat initiatives** represents a transformative step toward strengthening rural governance in India. However, the extent of their effectiveness remains contingent on various socio-technical and administrative factors. Based on an in-depth analysis of the e-Panchayat framework and its impact on governance efficiency, the following hypotheses are proposed for empirical validation:

Null and Alternate Hypotheses

Null Hypothesis (H_0): There is no significant difference in the mean satisfaction levels among the three villages (Railapur, Kappapahad, and Isnapur).

Alternate Hypothesis (H_1): At least one of the villages has a significantly different mean satisfaction level compared to the others.

2.4 Objectives:

The study aims to assess how digital governance contributes to **transparency, accountability, and efficiency in rural governance** while identifying the key factors that influence its success. The specific objectives are as follows:

1. To examine the implementation of state-specific and central e-Governance initiatives in Panchayat Raj Institutions in Telangana.
2. To analyze the role of e-Governance initiatives in achieving transparency and accountability in PRIs..
3. To assess the satisfaction levels of citizens regarding e-Panchayat applications.
4. To identify the challenges associated with implementing e-Governance initiatives in PRIs.
5. To propose policy recommendations for enhancing the effectiveness of e-Panchayat initiatives.

These objectives will guide the research in systematically evaluating the role of ICT in rural governance, contributing to policy discourse on digital transformation in PRIs, and addressing critical gaps in e-Governance implementation.

2.5 Methodology:

For the purpose of the study, 3 villages were selected from south, west and east of Hyderabad region. Kappapahad village from Ibrahimpatnam mandal, Ranga Reddy District, Isnapur village from Patancheru mandal, Sangareddy district, Railapur village from Medchal Mandal, Medchal-Malkajgiri district were selected for the purpose of the study.

Data was collected from primary sources and secondary sources.Secondary data was collected from Department of Panchayat Raj, Telangana and from Reports of Government of India. The tools used for the purpose of study are questionnaires for Citizens, Gram Panchayat Secretary and Sarpanch.Interview and discussion methods were adopted to elicit the information related to functioning of central and state specific initiatives. Group Discussions were also conducted with respondents to know their ideas in better way.32 respondents from each village were selected for the purpose of the study.Simple and random sampling technique was adopted to select the respondents.Data was analysed with help of statistical tools and techniques like averages, percentages.Likert five point scale , ANOVA Test were used to analyse the satisfaction levels of respondents.

DATA ANALYSIS AND INTERPRETATION

3.8. Awareness of online citizen services like Layout Mutation, and Building permission

Table 3.8 presents distribution of the awareness of online citizen services related to Layout, Mutation, Building permission among respondents in three different villages: Railapur, Kappapahad and Isnapur. For example, in Railapur, out of a total of 32 respondents, 81.25% reported being aware of online citizen services related to Layout, Mutation, Building permission, while 18.75% reported being unaware of such services. Similarly, in Kappapahad, 75% reported being aware of such services, 25% reported being unaware of such services. In Isnapur, 78.125% reported being aware of such services, while 7 respondents or 21.875% reported being unaware of such services.

The majority of respondents in each village reported being aware of such services, with a smaller proportion reporting being unaware of such services. However, the awareness level varied across the three villages.

Table 3.8: Awareness of Online Citizen Services for Layout Mutation and Building Permission

Village	Yes (%)	No (%)	Total (%)
Railapur	26 (81.25%)	6 (18.75%)	32 (100%)
Kappapahad	24 (75.00%)	8 (25.00%)	32 (100%)
Isnapur	25 (78.13%)	7 (21.88%)	32 (100%)
Total	75 (78.12%)	21 (21.88%)	96 (100%)

3.9. Availability of Online Layout Permission Services

Table 3.9 presents data on the availability of online layout permission services in the villages of Railapur, Kappapahad, and Isnapur. The majority of respondents in Railapur (90.62%) and Kappapahad (90.62%) reported that layout permission services are available online. In contrast, only 75% of respondents in Isnapur indicated the availability of online layout permission services, with 25% reporting that such services are not available.The results suggest a high level of digital service adoption in Railapur and Kappapahad, while Isnapur lags slightly behind. This discrepancy might be attributed to factors such as differences in internet infrastructure, digital literacy, or local administrative practices. Addressing these factors could help improve access to online services in Isnapur.

Table 3.9: Availability of Online Layout Permission Services

Village	Yes (%)	No (%)	Total (%)
Railapur	29 (90.62%)	3 (9.37%)	32 (100%)
Kappapahad	29 (90.62%)	3 (9.37%)	32 (100%)
Isnapur	24 (75.00%)	8 (25.00%)	32 (100%)
Total	82 (85.42%)	14 (14.58%)	96 (100%)

3.10 Online House Tax Payment

Table 3.10 presents data on the proportion of respondents in Railapur, Kappapahad, and Isnapur who pay their house tax online. The findings reveal significant variation in the adoption of online house tax payment services across the three villages.

The data suggest that while online house tax payment is prevalent across the three villages, Railapur shows a slightly lower adoption rate compared to Kappapahad and Isnapur. This highlights the potential need for increased digital literacy campaigns or improved accessibility to online payment systems in Railapur to further promote its adoption.

Table 3.10: Proportion of Respondents Paying House Tax Online

Village	Yes (%)	No (%)	Total (%)
Railapur	22 (68.75%)	10 (31.25%)	32 (100%)
Kappapahad	27 (84.38%)	5 (15.62%)	32 (100%)
Isnapur	25 (78.13%)	7 (21.87%)	32 (100%)
Total	74 (77.08%)	22 (22.92%)	96 100%)

3.11 Online Applications for Building Permission

The table presents data on the frequency of applying for building permission online in three villages: Railapur, Kappapahad and Isnapur. Looking at the data, we can see that the percentage of respondents who said "Yes" to applying for building permission online varies across the three villages. Railapur and Kappapahad had a high proportion of respondents who said "Yes" to applying for building permission online, with 27 out of 32 respondents (or 84.37%) saying "Yes" for Railapur, and 29 out of 32 respondents (or 90.62%) saying "Yes" for Kappapahad. This suggests that applying for building permission online is relatively common in these villages. However, in Isnapur, only 20 out of 32 respondents (or 62.5%) said "Yes" to applying for building permission online, while 12 respondents (or 37.5%) said "No." This suggests that applying for building permission online is less common in Isnapur compared to Railapur and Kappapahad.

Additionally, the reasons behind the differences in the frequency of applying for building permission online may be influenced by factors such as the availability of internet access or the level of awareness and education about online services.

Overall, the table provides insight into the prevalence of applying for building permission online in these three villages. The data suggests that while applying for building permission online is relatively common in Railapur and Kappapahad, it is less common in Isnapur. However, further investigation may be necessary to determine the underlying reasons for these differences.

Table 3.11: Frequency of Applying for Building Permission Online

Village	Yes (%)	No (%)	Total (%)
Railapur	27 (84.37%)	5 (15.62%)	32 (100%)
Kappapahad	29 (90.62%)	3 (9.37%)	32 (100%)
Isnapur	20 (62.50%)	12 (37.50%)	32 (100%)
Total	76 (79.17%)	20 (20.83%)	96 (100%)

3.12Availability of Online Trade License for Shops and Businesses

Table 3.12 provides information on whether the respondents in three different villages, Railapur, Kappapahad, and Isnapur, have obtained their trade license online for their shops/business or not.InRailapur, out of the 32 respondents, 23 (71.88%) reported that they have obtained their trade license online, and 9(28.12%) reported that they have not. Similarly, the table provides the corresponding information for the other two villages, Kappapahad and Isnapur. In Kappapahad, out of the 32 respondents, 24 (75.00%) reported that they have obtained their trade license online, and 8 (25.00%) reported that they have not. In Isnapur, out of the 32 respondents, 26 (81.25%) reported that they have obtained their trade license online, and 6 (18.75%) reported that they have not.

Table 3.12: Availability of Online Trade License for Shops and Businesses

Village	Yes (%)	No (%)	Total (%)
Railapur	23 (71.88%)	9 (28.12%)	32 (100%)
Kappapahad	24 (75.00%)	8 (25.00%)	32 (100%)
Isnapur	26 (81.25%)	6 (18.75%)	32 (100%)
Total	73 (76.04%)	23 (23.96%)	96 (100%)

3.13.Availability of Birth Certificates

Table 3.13 provides a frequency distribution of the availability of birth certificates in three different villages, namely Railapur, Kappapahad and Isnapur.

In Railapur village, 30 families (93.75%) have a birth certificate, while only 2 families (6.25%) do not have one. Similarly, in Kappapahad village, 29 families (90.625%) have a birth certificate, while only 3 families (9.375%) do not have one. In Isnapur village, 30 families (93.75%) have a birth certificate, while only 2 families (6.25%) do not have one.

Overall, Table provides important information on the availability of birth certificates in each village and can guide policymakers in formulating policies and programs to improve the availability and access to birth certificates in rural areas. The high availability of birth certificates in all three villages is a positive sign, and policymakers should continue to support and expand efforts to promote birth registration and increase the outreach of the scheme to eligible families in rural areas.

Table 3.13: Availability of Birth Certificates

Village	Yes (%)	No (%)	Total (%)
Railapur	30 (93.75%)	2 (6.25%)	32 (100%)
Kappapahad	29 (90.63%)	3 (9.37%)	32 (100%)
Isnapur	30 (93.75%)	2 (6.25%)	32 (100%)
Total	89 (92.71%)	7 (7.29%)	96 100%)

3.14 Availability of Death Certificates

Table 3.14. provides a frequency distribution of the availability of death certificates in three different villages, namely Railapur, Kappapahad and Isnapur.

In Railapur village, 30 families (93.75%) have a death certificate, while only 2 families (6.25%) do not have one. Similarly, in Kappapahad village, 25 families (78.12%) have a death certificate, while only 7 families (21.87%) do not have one. In Isnapur village, 25 families (78.12%) have a death certificate, while only 7 families (21.87%) do not have one. These findings suggest that the availability of death certificates in all three villages is high, and families are taking advantage of the scheme to obtain the necessary document.

Table 3.14: Availability of Death Certificates

Village	Yes (%)	No (%)	Total (%)
Railapur	**30 (93.75%)**	**2 (6.25%)**	**32 (100%)**
Kappapahad	**25 (78.12%)**	**7 (21.87%)**	**32 (100%)**
Isnapur	**25 (78.12%)**	**7 (21.87%)**	**32 (100%)**
Total	**80 (83.33%)**	**16 (16.67%)**	**96 100%)**

3.15 Gram Panchayat's Role in Solving Community Problems

Table 3.15. shows the frequency table for the question "The GP solving your problems" by village wise. The table indicates the number and percentage of respondents who answered "Yes" and "No" to the question.

Overall, the table suggests that the majority of respondents in all three villages feel that the GP is solving their problems. However, there is some variation between the villages, with Railapur and Kappapahad showing a higher proportion of respondents who answered "Yes" compared to Isnapur.

Table 3.15: Perception of Gram Panchayat's Problem-Solving Role

Village	Yes (%)	No (%)	Total (%)
Railapur	**31 (96.87%)**	**1 (3.12%)**	**32 (100%)**
Kappapahad	**27 (84.37%)**	**5 (15.62%)**	**32 (100%)**
Isnapur	**22 (68.75%)**	**10 (31.25%)**	**32 (100%)**
Total	**80 (83.33%)**	**16 (16.67%)**	**96 100%)**

3.16 Registering Complaints Directly to Gram Panchayat

Table 3.16. is a frequency table that provides information on whether the respondents have registered their complaints directly to Gram Panchayat. The data is presented village-wise, with the villages being Railapur, Kappapahad and Isnapur.

For Railapur, out of the 32 respondents, 31 (or 96.87%) have registered their complaints directly to Grama Panchayat, while only 1 (or 3.12%) have not. For Kappapahad, 29 (or 90.62%) have registered their complaints directly, while 3 (or 9.37%) have not. In Isnapur, 25 (or 78.12%) have registered their complaints directly, while 7 (or 21.87%) have not.

Table 3.16: Registering Complaints Directly to Gram Panchayat

Village	Yes (%)	No (%)	Total (%)
Railapur	31 (96.87%)	1 (3.12%)	32 (100%)
Kappapahad	29 (90.62%)	3 (9.37%)	32 (100%)
Isnapur	25 (78.12%)	7 (21.87%)	32 (100%)
Total	85 (88.54%)	11 (11.46%)	96 100%)

3.17 Complaints through WhatsApp

This table 3.17 shows the frequency distribution of complaining through Whatsapp among the respondents of the survey, categorized by village.InRailapur, 75 percent are complaining through whatsapp and it is highest in Kappapahad with 84 percent. In Isnapur it is only 71 percentWhatsApp is a widely used messaging app that can be used for communication and information-sharing. The availability of Whatsapp can be an important factor in facilitating communication between villagers, as well as between villagers and the Gram Panchayat. This information can be useful for planning communication strategies and identifying gaps in communication infrastructure.

Table 3.17: Use of WhatsApp for Registering Complaints

Village	Yes (%)	No (%)	Total (%)
Railapur	24 (75.00%)	8 (25.00%)	32 (100%)
Kappapahad	27 (84.37%)	5 (15.63%)	32 (100%)
Isnapur	23 (71.87%)	9 (28.12%)	32 (100%)
Total	74 (77.08%)	22 (22.92%)	96 (100%)

3.18 Awareness of Citizen Charter Board Regarding Number of Days for Work Completion

Table3.18 represents the frequency distribution of the variable "Awareness of citizen charter Board on number of days for work to be done" by village wise. In Railapur, out of 32 respondents, 28 (87.5%) are aware of the citizen charter board, while 4 (12.5%) are not aware. In Kappapahad, 22 (68.75%) respondents are aware, while 10 (31.25%) are not aware. In Isnapur, 20 (62.5%) respondents are aware, while 12 (37.5%) are not aware.

Table 3.18: Awareness of Citizen Charter Board on Number of Days Required for Work Completion

Village	No (%)	Yes (%)	Total (%)
Railapur	4 (12.50%)	28 (87.50%)	32 (100%)
Kappapahad	10 (31.25%)	22 (68.75%)	32 (100%)
Isnapur	12 (37.50%)	20 (62.50%)	32 (100%)
Total	26 (27.08%)	70 (72.92%)	96 100%)

3.19 Provision of Services According to the Citizen Charter

Table3.19 presents the frequency table for the variable "Providing services according to citizen charter" by village wise. The citizen charter is a document that specifies the standard of service to be provided by the government department to the citizens. In Railapur, all 32 respondents answered "Yes," indicating that the GP provides services according to the citizen charter. In Kappapahad, 25 (78.12%) respondents answered "Yes," while 7 (28.87%) answered "No." In Isnapur, 27 (84.37%) respondents answered "Yes," while 5 (15.62%) answered "No."Based on this table, we can see that the majority of respondents from all three villages believe that the GP provides services according to the citizen charter.

Table 3.19: Provision of Services According to Citizen Charter

Village	Yes (%)	No (%)	Total (%)
Railapur	**32 (100.00%)**	**0 (0.00%)**	**32 (100%)**
Kappapahad	**25 (78.12%)**	**7 (21.87%)**	**32 (100%)**
Isnapur	**27 (84.37%)**	**5 (15.62%)**	**32 (100%)**
Total	**84 (87.50%)**	**12 (12.50%)**	**96 100%)**

3.20 Satisfaction with Online Citizen Services

The table 3.20 lists the following satisfaction levels: highly satisfied, satisfied, neutral, dissatisfied, and highly dissatisfied.For example, in Railapur, out of the 32 respondents, 8 (25.00%) reported being highly satisfied with the online citizen services, 17 (53.1%) reported being satisfied, 1 (3.15%) reported being neutral, 6 (18.75%) reported being dissatisfied, and 0 (0.00%) reported being highly dissatisfied. This means that the majority of respondents in Railapur reported being either highly satisfied or satisfied with the online citizen services. However, there were still a significant number of respondents who were dissatisfied with the online citizen services in Railapur.Similarly, the table provides the same information for the other two villages, Kappapahad and Isnapur. By looking at the table, one can compare the satisfaction levels of online citizen services across different villages.

Overall, the table helps in analyzing the satisfaction of citizens with online citizen services and identifying areas for improvement in the provision of such services.

Table 3.20: Satisfaction with Online Citizen Services

Village	Highly Satisfied (%)	Satisfied (%)	Neutral (%)	Dissatisfied (%)	Highly Dissatisfied (%)	Total (%)
Railapur	**8 (25.00%)**	**17 (53.12%)**	**1 (3.12%)**	**6 (18.75%)**	**0 (0.00%)**	**32 (100%)**
Kappapahad	**8 (25.00%)**	**16 (50.00%)**	**1 (3.12%)**	**7 (21.87%)**	**0 (0.00%)**	**32 (100%)**
Isnapur	**5 (15.63%)**	**19 (59.37%)**	**2 (6.25%)**	**6 (18.75%)**	**0 (0.00%)**	**32 (100%)**
Total	**21 (21.88%)**	**52 (54.17%)**	**4 (4.17%)**	**19 (19.79%)**	**0 (0.00%)**	**96 (100%)**

3.21Satisfaction with Unified Birth and Death Services

Table 3.21 is a frequency table that presents the satisfaction levels of residents in three villages, Railapur, Kappapahad and Isnapur, with the Unified Birth and Death Services provided by their respective Grama Panchayats. For Railapur, out of 32 respondents, 21(65.62%) were satisfied with the service, while 2(6.25%) were highly dissatisfied, 4(12.5%) were dissatisfied, and 3(9.37%) were highly satisfied. In Kappapahad, out of 32 respondents, 19(59.37%) were satisfied with the service, while 1(3.12%) were highly dissatisfied, 3(9.37%) were dissatisfied, and 7(21.87%) were highly satisfied. In Isnapur, out of 32 respondents, 22(68.75%) were satisfied with the service, while none were highly dissatisfied, 2(6.25%) were dissatisfied, and 8(25.00%) were highly satisfied.

The table indicates that the majority of the respondents in all three villages were satisfied with the Unified Birth and Death Services provided by their respective Grama Panchayats. However, therewerealso some respondents who were dissatisfied or highly dissatisfied with the service, highlighting the need for improvements in the service.

Table 3.21: Satisfaction with Unified Birth and Death Services

Village	Highly Satisfied (%)	Satisfied (%)	Neutral (%)	Dissatisfied (%)	Highly Dissatisfied (%)	Total (%)
Railapur	3 (9.37%)	21 (65.62%)	2 (6.25%)	4 (12.50%)	2 (6.25%)	32 (100%)
Kappapahad	7 (21.87%)	19 (59.37%)	2 (6.25%)	3 (9.37%)	1 (3.12%)	32 (100%)
Isnapur	8 (25.00%)	22 (68.75%)	0 (0.00%)	2 (6.25%)	0 (0.00%)	32 (100%)
Total	18 (18.75%)	62 (64.58%)	4 (4.17%)	9 (9.38%)	3 (3.12%)	96 (100%)

3.22 Satisfaction with GPDP Discussions in Gram Sabha Meetings

Table 3.22 presents the frequency distribution of responses regarding the satisfaction on Gram Panchayat Development Plan (GPDP) discussion in Gram Sabha meetings in three different villages. The data is presented in five categories ranging from highly dissatisfied to highly satisfied.In Railapur village, out of 32 respondents, 15 (46.87%) reported satisfaction with the GPDP Gram Sabha meetings, while 3 (9.375%) were dissatisfied, and 7 (21.87%) were neutral. Six (18.75%) respondents reported being highly satisfied, and one (3.12%) was highly dissatisfied.

In Kappapahad village, out of 32 respondents, 12 (37.5%) reported satisfaction with the GPDP Gram Sabha meetings, while 5 (15.62%) were highly satisfied, and 5 (15.62%) were dissatisfied. Nine (28.15%) respondents were neutral, and one (3.12%) was highly dissatisfied.

In Isnapur village, out of 32 respondents, 14 (43.75%) reported satisfaction with the GPDP Gram Sabha meetings, while 7 (21.87%) were dissatisfied, and 5 (15.62%) were neutral. Four (12.5%) respondents were highly satisfied, and two (6.25%) were highly dissatisfied.

Overall, the majority of respondents in each village reported satisfaction with GPDP Gram Sabha meetings, with the highest proportion of highly satisfied respondents in Kappapahad village.

Table 3.22: Satisfaction with GPDP Discussions in Gram Sabha Meetings

Village	Highly Satisfied (%)	Satisfied (%)	Neutral (%)	Dissatisfied (%)	Highly Dissatisfied (%)	Total (%)
Railapur	6 (18.75%)	15 (46.87%)	7 (21.87%)	3 (9.37%)	1 (3.12%)	32 (100%)
Kappapahad	5 (15.62%)	12 (37.50%)	9 (28.15%)	5 (15.62%)	1 (3.12%)	32 (100%)
Isnapur	4 (12.50%)	14 (43.75%)	5 (15.62%)	7 (21.87%)	2 (6.25%)	32 (100%)
Total	15 (15.62%)	41 (47.71%)	21 (21.87%)	15 (15.62%)	4 (4.17%)	96 (100%)

3.23 Perception of Mission Antyodaya Program

Table 3.23.presents the frequency distribution of the perception of the Mission Antyodaya program in three villages (Railapur, Kappapahad, and Isnapur). The table shows the number and percentage of respondents who are satisfied, dissatisfied, highly dissatisfied, neutral, and highly satisfied with the program.

In Railapur, out of 32 respondents, 18 (56.25%) were satisfied, 5 (15.625%) were dissatisfied, 2 (6.25%) were highly dissatisfied, 4 (12.5%) were neutral, and 3 (9.375%) were highly satisfied with the program.InKappapahad, out of 32 respondents, 21 (65.625%) were satisfied, 6 (18.75%) were dissatisfied, 2

(6.25%) were highly dissatisfied, 1 (3.12%) were neutral, and 2 (6.25%) were highly satisfied with the program.In Isnapur, out of 32 respondents, 19 (59.37%) were satisfied, 5 (15.62%) were dissatisfied, 2 (6.25%) were highly dissatisfied, 1 (3.12%) were neutral, and 5 (15.62%) were highly satisfied with the program.
The table provides insight into the perception of the Mission Antyodaya program in the three villages. It suggests that a majority of respondents in all three villages are satisfied with the program. However, a significant proportion of respondents in each village are either dissatisfied or highly dissatisfied with the program. The table also shows that the proportion of highly satisfied respondents varies across the villages, with the highest proportion in Railapur and Isnapur.

Table 3.23: Perception of Mission Antyodaya Program

Village	Highly Satisfied (%)	Satisfied (%)	Neutral (%)	Dissatisfied (%)	Highly Dissatisfied (%)	Total (%)
Railapur	3 (9.37%)	18 (56.25%)	4 (12.50%)	5 (15.62%)	2 (6.25%)	32 (100%)
Kappapahad	2 (6.25%)	21 (65.62%)	1 (3.12%)	6 (18.75%)	2 (6.25%)	32 (100%)
Isnapur	5 (15.62%)	19 (59.37%)	1 (3.12%)	5 (15.62%)	2 (6.25%)	32 (100%)
Total	10 (10.42%)	58 (60.41%)	6 (6.25%)	16 (16.66%)	6 (6.25%)	96 (100%)

3.24 Satisfaction with Grievance Redressal Mechanism

Table 3.24. shows the frequency distribution of responses from the villagers with respect to their satisfaction levels regarding the complaint redressal mechanism in their respective villages. In Railapur, out of 32 respondents, 13 villagers (40.62%) are satisfied, while 9 (28.12%) are dissatisfied with the complaint redressal mechanism. Only 3 (9.37%) villagers are highly satisfied with the complaint redressal mechanism, and 6 (18.75%) villagers are neutral about it.InKappapahad, out of 32 respondents, 10 (31.25%) villagers are satisfied, and 7 (21.87%) villagers are dissatisfied with the complaint redressal mechanism. 10 (31.25%) villagers are neutral about the mechanism, and only 3 (9.37%) villagers are highly satisfied with it.In Isnapur, out of 32 respondents, 15 (46.87%) villagers are satisfied with the complaint redressal mechanism, while only 5 (15.62%) villagers are dissatisfied. 4 (12.5%) villagers are highly satisfied, 5 (15.62%) villagers are neutral, and 3 (9.37%) villagers are highly dissatisfied with the complaint redressal mechanism.
Overall, the data suggests that the satisfaction levels of the villagers regarding the complaint redressal mechanism vary across villages. While some villagers are highly satisfied, some others are neutral or dissatisfied with the mechanism.

Table 3.24: Satisfaction with Grievance Redressal Mechanism

Village	Highly Satisfied (%)	Satisfied (%)	Neutral (%)	Dissatisfied (%)	Highly Dissatisfied (%)	Total (%)
Railapur	3 (9.37%)	13 (40.62%)	6 (18.75%)	9 (28.12%)	1 (3.12%)	32 (100%)
Kappapahad	3 (9.37%)	10 (31.25%)	10 (31.25%)	7 (21.87%)	2 (6.25%)	32 (100%)
Isnapur	4 (12.50%)	15 (46.87%)	5 (15.62%)	5 (15.62%)	3 (9.37%)	32 (100%)
Total	10 (10.42%)	38 (39.58%)	21 (21.87%)	21 (21.87%)	6 (6.25%)	96 (100%)

3.25 Differences in Satisfaction Across Villages

Testing Hypothesis

Null and Alternate Hypotheses

Null Hypothesis (H_0): There is no significant difference in the mean satisfaction levels among the three villages (Railapur, Kappapahad, and Isnapur).

Alternative Hypothesis (H_1): At least one of the villages has a significantly different mean satisfaction level compared to the others.
This table 3.25 shows the analysis of variance (ANOVA) for satisfaction by village wise. ANOVA is a statistical technique used to test the differences between means of two or more groups. In this case, the Term refers to the effect of village wise on satisfaction. The F-value measures the ratio of the between-group variability to the within-group variability. The p-value is the probability of obtaining the observed results assuming the null hypothesis is true, i.e., there is no significant difference between the means of the groups. The $\eta 2$ is the effect

size measure which represents the proportion of the total variation in the dependent variable that is accounted for by the independent variable.
From the table, we can see that the F-value is 1.02, the p-value is 0.364, and the η2 is 0.02. The F-value is below the critical value, which indicates that there is no significant difference between the means of the groups. The p-value is greater than the significance level of 0.05, indicating that there is no significant difference between the groups. The effect size (η2) is very small, indicating that the variation in satisfaction that is explained by the village wise is negligible.
Therefore, based on this analysis, we can conclude that there is no significant difference in satisfaction among the three villages.

Table 3.25: Analysis of Variance Table for Satisfaction by village wise

Term	*SS*	*df*	*F*	*p*	η_p^2
Village wise	10.90	2	1.02	.364	0.02
Residuals	495.34	93			

FINDINGS OF THE STUDY

The findings of this study highlight the impact of e-Panchayat initiatives on governance, citizen satisfaction, and service delivery across the villages of Railapur, Kappapahad, and Isnapur.
The study reveals that, on average, 70% of respondents were satisfied with online citizen services, particularly for birth and death certificates and direct benefit transfers.
However, the property tax assessment and payment system remains underutilized and is not fully digitalized in these villages.
There is an urgent need to enhance the digitization of property tax services to improve transparency and accessibility.
Department-specific modules such as the Panchayat Secretary Mobile App and Supervisory App have contributed significantly to improving transparency, accountability, and efficiency in local governance.
Daily updates on Palle Pragathi activities—such as sanitation reports—have played a critical role in enhancing public health by reducing the risk of epidemics.
These technological interventions have improved monitoring and streamlined local administrative processes.
Environmental protection and income generation have been boosted through Palle Prakruthi Vanam activities, which promote afforestation and create economic opportunities for local communities.
Effective waste management practices are also being implemented through segregation sheds monitored via mobile apps, which contribute to sustainable development goals in rural areas.
Financial transparency and accountability have improved through the Integrated Financial Management and Information System (IFMIS), which ensures that all financial transactions in Gram Panchayats are monitored and controlled.
This system has significantly reduced fraud and corruption, promoting financial integrity and aligning with the broader goal of Gram Swaraj.
Citizen engagement has increased through the use of WhatsApp groups for officials, development plans, and committees, enabling real-time grievance redressal and improving administrative efficiency.
Good governance practices and decentralization are promoted through the Gram Panchayat Development Plan (GPDP), which ensures participatory planning in coordination with various line departments. Initiatives such as daily sanitation reports and the online payment of electricity bills have simplified service delivery, improving the overall quality of life for villagers.

CONCLUSION AND SUGGESTIONS

The findings of this study underscore the transformative impact of e-Panchayat initiatives on rural governance and service delivery. By integrating digital tools and processes, these initiatives have improved transparency, accountability, and citizen engagement across the villages of Railapur, Kappapahad, and Isnapur. The availability of online services such as birth and death certificates, building permissions, and grievance redressal mechanisms has significantly enhanced accessibility for rural citizens. However, challenges remain in areas like property tax digitalization, infrastructure gaps, and citizen awareness, which require targeted interventions for further improvement.
Citizen satisfaction with online services is generally high, reflecting the effectiveness of digital governance. The use of department modules like the Panchayat Secretary Mobile App and Supervisory App has streamlined administrative processes and contributed to better service delivery. Initiatives like Palle Pragathi and Palle Prakruthi Vanam have not only supported environmental sustainability but also boosted income generation for local communities. Furthermore, financial accountability through IFMIS has helped reduce corruption and ensure transparency in Gram Panchayat operations.

Despite the progress made, there is a need to strengthen citizen participation in governance through regular Gram Sabha meetings and enhanced community engagement. While Railapur and Kappapahad show promising results, Isnapur requires additional efforts to increase awareness and participation in local governance. With targeted capacity-building programs, improved digital literacy, and an expansion of online services, the vision of Gram Swaraj can be fully realized.

Suggestions

To enhance the effectiveness of e-Panchayat initiatives and promote good governance, several key measures are recommended. Capacity-building programs should be organized for Sarpanches, Panchayat Secretaries, and other staff to improve their digital governance skills and service delivery efficiency. Simultaneously, targeted citizen awareness campaigns and digital literacy programs must be conducted to educate rural communities about the benefits of e-Governance and encourage the use of online services. Strengthening the online tax assessment and payment systems will improve transparency and accountability, while implementing a dedicated online grievance redressal mechanism in the e-Panchayat portal can simplify and streamline complaint resolution. Greater efforts should be made to promote active participation in Gram Sabha meetings by raising awareness about their importance and encouraging citizen engagement. Continued use of financial management systems like IFMIS and online audit portals will ensure financial transparency and minimize corruption. Local innovations, such as community blogs in Kappapahad should be encouraged and replicated in other villages to strengthen governance and community involvement. Furthermore, expanding initiatives like Palle Pragathi and Palle Prakruthi Vanam will support environmental sustainability and income generation. Investments in improving internet infrastructure and mobile connectivity are crucial to bridging the digital divide and ensuring seamless access to online services in remote areas. Finally, building SMART (Simple, Moral, Accountable, Responsive, Transparent) Panchayats will empower rural communities and help realize the vision of Gram Swaraj through inclusive and sustainable development.

References

1. Ali, M. (2020). ICT-based Governance and its Impact on Rural Administration in India. Journal of Rural Studies, 45(3), 123–135.
2. Dar, S. A. (2022). SMART Governance in Kashmir: A Study on ICT-based Panchayati Raj Administration. International Journal of Public Administration, 37(4), 254–269.
3. Government of Telangana. (2023). E-Panchayat Citizen Portal Overview. Telangana Commissionerate of Panchayat Raj and Rural Employment. Retrieved from https://epanchayat.telangana.gov.in
4. Ghatak, S., & Ghatak, R. (2002). Decentralization in West Bengal: Panchayat Reforms and Participatory Governance. Economic and Political Weekly, 37(5), 155–160.
5. Kadam, S., & Shelar, A. (2020). The Role of E-Gram Panchayat Management System in Enhancing Administrative Efficiency in Maharashtra. Journal of Rural Development, 25(2), 67–78.
6. Kumaiyan, S., &Padalia, A. (2017). Challenges in E-Panchayat Adoption: Bridging the Digital Divide in India. Indian Journal of E-Governance, 12(1), 89–102.
7. Malik, A. (2008). Bureaucratic Resistance and Digital Transformation in Rural Governance: A Case Study of Panchayati Raj Institutions. Journal of Public Administration, 20(3), 210–223.
8. MoPR. (2021). Online Audit Portal for Panchayati Raj Institutions. Ministry of Panchayati Raj. Retrieved from https://auditonline.gov.in
9. Padave, P., & Parulekar, M. (2018). Digital Governance Models in Telangana: A Case Study of Kurle Gram Panchayat. Indian Journal of Governance Studies, 18(4), 89–104.
10. Rao, K. (2022). E-Governance Initiatives in Andhra Pradesh: A Case Study in Prakasam District. Journal of E-Governance, 35(1), 34–50.
11. Rashid, M., & Bansal, A. (2017). Adoption of E-Governance in Baramulla District: Overcoming Infrastructure Challenges. Journal of Regional Development, 15(2), 98–112.
12. Sahu, R., Pradhan, A., & Netam, D. (2021). Digital Gram Panchayat Services: Enhancing Citizen Participation and Access to Government Welfare Schemes. Journal of Rural Development Studies, 28(3), 145–160.
13. Sharma, V., & Gupta, R. (2021). The Role of Geographic Information Systems in Improving Decision-Making at the Village Level. Journal of Information Systems and Rural Development, 23(4), 191–210.