

Indian Journal of Modern Research and Reviews

This Journal is a member of the '**Committee on Publication Ethics**'

Online ISSN:2584-184X

Research Article



Bridging the Digital Divide through E-Governance: An Empirical Study of Rural Inclusion and Service Accessibility in Madhya Pradesh, India

Ankit Singh Bisen^{1*}, Dr. D. D. Bedia²

¹ Research Scholar, Pt. JNIBM, Ujjain, Madhya Pradesh, India

² Professor, Pt. JNIBM, Ujjain, Madhya Pradesh, India

Corresponding Author: *Ankit Singh Bisen

DOI: <https://doi.org/10.5281/zenodo.18367938>

Abstract

E-governance in rural India still struggles with the digital divide. Many rural people cannot use digital public services even though the government has invested heavily in digital systems under the Digital India program. Low literacy, fear of technology, poor access to devices and weak trust in online services stop people from using digital platforms. Because of this, many citizens remain outside the system and do not take part in digital governance.

This study explains the reasons for the digital divide in rural e-governance using real data from Common Service Centres in Madhya Pradesh. The researchers used a structured questionnaire with 360 rural people from six districts. They applied simple statistical methods to study how key factors affect the use of e-governance services. The results show that digital literacy, access to infrastructure, trust in institutions and service quality strongly influence whether people use these services.

The study shows that digital literacy and trust in institutions matter more than just having internet or devices. Internet access and service centres alone do not make people use digital services. People avoid online services when they lack basic digital skills, confidence and trust in the system, even if the services are available. The study also finds that service quality, quick response and good user experience strongly affect whether people choose to use digital platforms.

Solving the rural digital divide needs more than just technology. It needs people-focused governance that builds skills, spreads digital awareness, grows trust and improves services. Communities need training, local digital help and simple service systems. These steps will not only connect rural people to digital services but also help them use them with confidence.

This paper adds real evidence to digital governance research. It shows the true nature of the rural digital divide and offers clear, practical, and policy ideas to improve inclusive, people-friendly and long-lasting e-governance in India.

Manuscript Information

- **ISSN No:** 2584-184X
- **Received:** 10-11-2025
- **Accepted:** 29-12-2025
- **Published:** 25-01-2026
- **IJCRM:**4(1); 2026: 188-195
- **©2026, All Rights Reserved**
- **Plagiarism Checked:** Yes
- **Peer Review Process:** Yes

How to Cite this Article

Bisen AS, Bedia DD. Bridging the digital divide through e-governance: an empirical study of rural inclusion and service accessibility in Madhya Pradesh, India. Indian J Mod Res Rev. 2026;4(1):188-195.

Access this Article Online



www.multiarticlesjournal.com

KEYWORDS: Digital Divide, E-Governance, Rural Development, CSCs, Digital Inclusion, India.

1. INTRODUCTION

Digital change has become a key part of government reform around the world. Governments now use digital tools to connect with people and deliver services in better ways. Many countries use online systems to make work faster, more open, more responsible and more people-friendly. Digital government replaces slow old systems with services that are quicker, easier to use and focused on citizens.

In India, the Digital India Mission is a national effort to bring technology into governance. It aims to make government services available online in every part of the country. This mission helps people access services easily, saves time, reduces corruption and supports fair social and economic growth. It works to build a society where technology supports progress, inclusion and good leadership.

Digital governance does not help everyone in the same way. Many people still struggle to use digital public services even after large investments in technology and platforms. Rural areas face the biggest problems in access and use.

The digital divide means gaps in owning devices, knowing how to use technology, and getting real benefits from it. In rural India, this problem grows because of low digital skills, weak internet, financial limitations, language barriers, low education, little experience with digital tools and low trust in institutions.

These issues make it hard for people to use digital services and stop them from getting full benefits from technology. As a result, social and development gaps continue to grow.

To solve these problems, the Indian government started the Common Service Centre (CSC) scheme. CSCs are local help centres where people in villages can use government, banking, education, health and business services with the support of trained local workers. These centres connect people to digital services and help them use technology in simple ways.

CSCs turn digital systems into real services for people who do not have devices, skills, or access on their own. Even though the number of CSCs has grown a lot, their use is not the same everywhere. In many villages, use does not depend only on having a CSC nearby. It also depends on people's awareness of digital tools, their trust in the system, the quality of service, their belief in technology and their experience with government services.

This paper studies how the digital divide affects the use of e-government services by rural people in Madhya Pradesh. It looks at how digital skills, infrastructure, service quality and trust in institutions together shape how people use digital public services. The study follows a social and institutional view. It sees digital use as a human issue, not just a technology issue. It focuses on people's skills, trust and service experience rather than only on access to technology.

By studying these connected factors, the research explains the social, structural and institutional barriers that limit rural e-government use. It also offers ideas for building digital governance that is people-focused. This approach goes beyond building systems and networks and works on empowerment, trust, better services and long-term digital inclusion.

2. REVIEW OF LITERATURE

2.1 Digital Divide: Concept and Dimensions

Digital divide means that not everyone gets equal access to technology, digital tools, skills or the benefits of using them. It is not only about having a phone or an internet connection. It is about who can truly use digital tools in daily life. This gap affects how different people take part in digital life. Some people gain more benefits while others are left behind. The divide is not only about technology. It also comes from social and economic conditions. Things like education, income, place of living, gender and support from institutions shape this gap. Because of this, the digital divide reflects deeper social inequality in society.

Experts explain the digital divide in three simple levels:

- i. **Access Divide** means people do not have basic things like devices, good internet, electricity or digital centres. This is common in rural and remote areas and makes it hard for people to start using digital services.
- ii. **Skill Divide** means people may have access to the internet, but still cannot use it well. Many people lack digital skills, feel afraid of technology, face language problems or do not feel confident. Because of this, they do not use digital services properly.

Benefit Divide means not everyone gains equally from digital services. Some people get jobs, education, banking, health services and government help through digital platforms, while others do not. Most benefits go to people who are already better off, which increases inequality.

These three parts work together and make exclusion stronger. When people do not have access, they cannot learn digital skills. When they do not have skills, they do not use digital tools. When they do not use digital tools, they do not get any benefits. This creates a cycle that slowly pushes people out of digital life. Over time, this increases social and economic gaps between people, places and generations.

Studies show that rural people face more digital problems than people in cities. Rural areas often have poor internet, weak schools, low income, and less support from institutions. Many villages lack good services and digital facilities. Because of this, people find it hard to use digital services. This also limits their chances for jobs, basic services and a better life. These problems slow down rural development and keep villages behind.

The digital divide is a major problem for rural development. It limits how digital tools can improve jobs, governance, education, health and social inclusion. When digital platforms ignore these deep social issues, they help only those who already have advantages. This makes the gap even wider. So, solving the digital divide needs more than building cables or Wi-Fi networks.

Real solutions must go further. We must expand digital access and also teach people how to use it. Services should be made for everyone, not only for skilled users. Communities need support to use digital tools with confidence. Trust in institutions must grow, and policies must focus on fairness and equal chances for all. Plans should look at access, skills, social

barriers, culture and local systems that shape how people use technology. Only this kind of combined effort can turn digital change into real inclusion and bring real power, fairness and lasting growth to rural areas.

2.2 E-Governance and Rural Inclusion

E-governance can make public services fairer and easier for everyone. People can access services without long travel, long waits or complex office work. Digital systems reduce slow processes and cut the role of middlemen, so more people can take part in governance. Services can reach homes and local communities through digital tools. This links people and the government more open, active and responsive to real needs.

E-governance works only when people know how to use digital tools and trust them. Just having technology is not enough. If people fear for their data, worry about privacy or do not trust the system, they will not use online services. Even good platforms fail when people feel unsafe or unsure. People also need guidance, support and simple services to feel confident. Training, local help and clear processes build trust step by step. Without trust and skills, digital tools become unused machines, not tools that help people in real life.

Research shows that many things affect how people use e-governance services. The most important ones are good infrastructure, easy platforms, good service quality, and trust in institutions (Venkatesh et al., 2012). People use digital services more when systems are simple, safe, clear, and fast. Quick responses, transparent steps, and strong data security also build confidence. When platforms feel natural to use, and services work smoothly, people feel comfortable. When institutions show care and honesty, trust grows. People then start seeing digital services as helpful, not risky. This trust and comfort make people more willing to use e-governance in daily life.

Trust turns online access into real participation. It helps people move from only having digital tools to actually using them with confidence. Trust reduces fear, doubt, and resistance. Good e-governance needs more than technology. It needs simple design, honest systems, clear rules and steady service improvement so people feel safe to stay connected.

E-governance is not just about new machines or software. It changes how society and institutions work. It succeeds only when digital tools match people's daily life needs and abilities. When services are fast and fair, and institutions act honestly, people start trusting the system. This trust helps citizens use digital services freely and take part in public decisions.

2.3 Digital Literacy and Trust

People need good digital skills to use online services. These skills help them understand apps, find services, and complete tasks on digital platforms. People with strong skills use services on their own, make payments easily, and feel confident with technology. Digital skills also remove fear and doubt about using online tools. People with low digital skills depend on others for help. They worry about mistakes, money loss, and data safety, so they avoid online services. This problem is stronger in rural and low-literacy areas where people get fewer chances to learn and use digital tools.

People who lack digital skills face many problems. They depend on others for simple tasks. They fear making mistakes, and they worry about losing money and data. They do not trust digital systems. Because of this fear and confusion, they avoid online services even when they are available. They prefer offline work and manual systems.

This problem is much stronger in rural and low-literacy areas. People in these areas get fewer chances to learn digital skills. They have less exposure to smartphones, computers, and internet services. Training opportunities are limited, and support systems are weak. Because of this gap, people stay away from digital platforms. This keeps them outside digital services and slows down digital inclusion and development.

Trust is very important for people to use e-government services. People decide whether to use digital services based on how much they trust the government and the organisations that help them. In rural areas, trust matters even more because people often face poor services, corruption and lack of clarity. People use online services only when they feel the system is safe, honest, fair and made for citizens. They must believe that their data is secure and that the service will truly help them. Trust also grows through local helpers like CSC operators and service workers. These people act as the face of digital services for villagers. When they behave well, guide properly and solve problems honestly, people feel comfortable using technology. When helpers are careless or unhelpful, people lose faith in the whole system.

Daily experience builds trust step by step. Small actions like clear guidance, polite behaviour, timely help and honest service slowly increase confidence. Over time, these simple interactions shape how people feel about digital services and decide whether they will use them or avoid them.

Digital skills and trust work together; skills help people use digital services, and trust helps them keep using them. If people know technology but do not trust the system, they use it only for a short time and with fear. If people trust the system but do not have the skills, they cannot use it properly. Both are needed for real digital use.

So, any good plan must build digital skills and trust at the same time. Training alone is not enough. Trust grows through clear processes, honest service, strong data safety, quick problem solving and fair behaviour. People must feel safe and respected when they use digital services.

The results show that rural e-government needs community support, public involvement, and a change in government working style. It must focus on people, not only on technology. Digital

services should not just give access. They should help people feel confident, supported, and included. Only this kind of combined approach can make rural e-government truly useful. It will not only connect people to services but also help them stay involved, feel empowered and trust the system for the long term.

2.4 Research Gap

Most studies focus on how CSCs work, how well they perform and how systems are managed. Very few studies look at how

rural people actually feel about digital services and digital gaps. Research mostly talks about institutions, management, service delivery and government policies. Because of this, the real voices and daily experiences of rural people are often missing. These people are the main users of digital services, but their views are not given enough importance.

This focus on policy and systems does not show the real-life problems people face. It does not explain how rural people feel while using digital services or what makes it difficult for them. Fear of technology, low confidence, trust issues, dependence on middlemen and social habits affect digital use a lot. These human problems are rarely studied in detail. Because of this, we do not get a complete picture of rural e-governance; the human side of digital use is missing. Real digital inclusion cannot happen without understanding people's feelings, behaviour, trust and daily struggles.

There is a clear research gap in Madhya Pradesh on how the digital divide affects the use of e-governance by rural people. Most studies use national data or general rural models. These do not show the local economy, local systems, culture or differences between districts. Important issues like digital skills, internet access, trust in institutions and helpers, service quality, local culture and local governance are not studied properly from the point of view of rural people.

This gap is very important for building digital governance that is based on real community life and not only on policy ideas. Without studies that focus on people, digital projects become top-down systems that do not match the needs and thinking of rural citizens. Such projects often fail because they ignore daily life problems and real user experiences. This study follows a people-focused approach. It explains the social, behavioral and structural reasons why rural people in Madhya Pradesh use or avoid e-governance. It adds real ground-level knowledge instead of only theory.

The study also supports better policy planning. It helps create digital systems that are local, fair, trusted and useful for people. These systems not only work well but also build confidence and give real power to rural citizens.

3. OBJECTIVES AND HYPOTHESES

Objectives

- To understand the level of the digital divide in rural Madhya Pradesh by studying access to the internet, devices, digital skills and the social and economic benefits of digital services.
- To study how digital skills and infrastructure affect trust in institutions and the use of e-governance services, and how these factors together shape people's confidence and ability to use digital systems.
- To examine how trust in institutions changes the link between digital access, digital skills and the regular use of e-governance services.
- To develop local and practical policy suggestions that support inclusive digital governance by building digital skills, trust, service quality, accountability and equal access for rural communities.

HYPOTHESES

H1: People with better digital skills feel more confident and find it easier to use online government services. Good knowledge and comfort with technology increase their use of digital platforms.

H2: People use online government services more when they have access to devices, internet, electricity and nearby digital service centres. Easy physical access makes digital use simpler.

H3: Trust in digital systems, government and service providers encourages people to use and continue using online government services.

H4: Digital skills and trust work together to increase the use of online government services. Digital skills build confidence and trust, which helps people keep using digital services in the long term.

4. RESEARCH METHODOLOGY

4.1 Research Design

We used a cross-sectional quantitative research design to study how the digital divide affects the use of e-governance services by rural people. We collected all data at one time from respondents in real village settings. This helped us see clear patterns and links between the main factors. We used clear variables and a simple data structure so the results could be compared across people and districts. This made the findings easy to understand and reliable for real rural conditions.

To make the study reliable and strong, we used a quantitative approach based on real data. This helped us test our model and hypotheses clearly and fairly. We used proper statistical methods, so the results come from evidence and not opinion.

This method also allowed us to use tools like factor analysis, regression, and mediation analysis. With these tools, we studied both direct and indirect links between digital skills, access to infrastructure, service quality, trust in institutions and the use of e-governance services. This approach makes the study more scientific and trustworthy. It also helps explain the results clearly and connects them with theory in a simple and meaningful way.

An explanatory framework helps us go beyond simple facts and numbers. It helps us understand how and why the digital divide shapes the way people use digital services. We do not only look for links between factors. We try to understand the real processes behind them in everyday rural life. This approach shows how digital skills, access, trust, and service quality work together in real situations. It explains why some people adopt e-governance services, and others do not.

By focusing on explanation instead of just description, the study gains real value. It gives a deeper understanding of rural digital inclusion and helps build clear and meaningful knowledge about how digital systems actually work for people.

This approach builds a strong base for real and practical policy ideas. It uses clear data and simple analysis to turn evidence into actions that can work on the ground. The focus stays on what people actually need and what systems can truly support them. The study helps create people-focused e-governance models that are easy to use, trusted by citizens, and useful in daily life. It links real findings with planning and decision-

making so that policies are not just written on paper but can be applied in villages and rural areas.

By using real data and clear logic, the research supports digital systems that are strong in technology, fair in service, trusted by people and able to last for a long time in rural communities.

4.2 Study Area

The study took place in six selected districts of Madhya Pradesh: Ujjain, Indore, Dewas, Bhopal, Gwalior, and Sehore. These districts were chosen with care to show real differences in location, economy, culture, and local systems of governance. Each district represents a different type of setting, from more urban areas to semi-rural and fully rural regions.

This selection helps the study show how digital services work in different ground realities. Some areas have better internet, more services, and higher use of e-governance, while others struggle with weak networks, low access, and low usage. By including both developed and less developed areas, the study captures the true picture of digital inequality. This approach makes the research more realistic and meaningful. It helps explain how people living near cities experience digital services differently from those in villages and semi-rural areas. It also allows the findings to reflect real village life, real problems and real needs, which makes the results more useful for planning better and fair digital governance in rural Madhya Pradesh.

Different growth levels, digital access, and local institutions across districts make the study completer and more balanced. This helps us understand the rural digital divide and the use of e-government in Madhya Pradesh in a real way.

The study shows how local conditions shape digital use. It highlights area differences, local gaps and community effects that change how people use online public services. This approach helps us clearly see how the local economy, basic infrastructure and government systems work together to influence whether people join the digital world or stay outside it.

Because of this, our choice of study areas makes the research stronger and more meaningful. It also helps the findings fit real needs when making local policies and region-based digital plans.

4.3 Sample and Sampling

Sample Size: The study included 360 rural people who use Common Service Centres in selected districts of Madhya Pradesh. This number gave strong and reliable data for analysis. It helped us test the hypotheses, run regression, and study how different factors

work together. The sample also represents people of different ages, education levels, and backgrounds, so the results reflect real rural communities.

Sampling Technique: We used stratified random sampling so every group had fair representation. This included people from different districts, villages, ages, genders, education levels, and income groups. This method reduced bias and made the sample closer to the real rural population. It helped us capture real differences in skills, experiences, and use of digital services, which makes the results more reliable and useful.

4.4 Data Collection

Primary Data Collection: We collected the main data using a structured questionnaire. We designed the questionnaire to understand how rural people think, feel, and act about using e-governance services. We built it using clear theory and past research, so it matched the goals of the study. The questions were simple and well-organised. They covered digital skills, access to facilities, service quality, trust in institutions, and use of online services. This clear structure helped us collect the same type of data from everyone. It made the responses easy to compare and helped us do proper quantitative analysis. This improved the quality and reliability of the study and gave a clear picture of how rural people use e-governance services.

Measurement Scales Used: Digital Literacy Scale - to verify the level of digital proficiency, as well as the confidence and the general digital capabilities that people have.

Infrastructure Access Scale: to establish whether individuals have the devices, internet, and locations that provide digital services.

Trust Scale: to observe the level of trust of people in institutions, digital systems, and individuals assisting in digital services.

E-Governance Adoption Scale: is used to find out the frequency and extent to which individuals use digital government services.

Response Measurement: We measured all questions using a 5-point scale from strongly disagree (1) to strongly agree (5). This kept the data clear and consistent. It also helped us see how satisfied people felt with e-governance services. The scale lets people show how strongly they agree or disagree simply. This made their opinions easy to understand and compare across all responses.

4.5 Data Analysis Tools

Statistical Software: The data analysis of the data was done using SPSS version 26, and this application assisted us in handling the data in a systematic and accurate manner.

Descriptive Statistics: We used them to define the features of the respondents and the predominant patterns in the data, and provided a general representation of the sample.

Reliability Testing: Cronbach's alpha (α) was applied to test the consistency of the work of the measurement items. **Exploratory Factor Analysis (EFA):** This has been done to ascertain the structure of the scales as well as to discover the underlying groups of factors. **Correlation and Regression Analysis:** The same was employed to examine the relationship among variables and to determine the effect of digital literacy, access to infrastructure and trust in the adoption of e-governance.

Mediation Analysis: This was conducted to test the fact that trust can be used to explain the relationship between e-governance adoption and digital literacy, which showed an indirect influence.

5. Data Analysis and Results

5.1 Reliability Analysis

Cronbach's Alpha values:

Construct	<i>a</i>
Digital Literacy	0.87
Infrastructure Access	0.82
Trust	0.88
Adoption	0.85

- High Internal Consistency and Reliability:** There is a good cooperation between all the parts of the test, and they provide reliable results. The numbers of the Cronbach's Alpha are also above 0.70, which implies that the items are consistent and stable.
- Statistical and Analytical Suitability:** The scales employed are valid and methodological. They are safe in application in advanced statistics and inferential tests, such as factor analysis and regression, among other inferential tests.
- Construct Measurement Accuracy:** The fact that the reliability is high indicates that the questions measure what they are intended to measure accurately and consistently. This enhances the credibility and scientificity of the results.

5.2 Correlation Results

Variable	Adoption
Digital Literacy	0.64
Infrastructure	0.49
Trust	0.71

($p < 0.01$)

The correlation results reveal a statistically significant and meaningful relationship between the independent variables and Adoption at the 0.01 level ($p < 0.01$). Digital Literacy shows a moderately strong positive correlation with Adoption ($r = 0.64$), indicating that higher levels of digital skills and awareness are strongly associated with increased adoption of digital services. Trust exhibits the strongest positive relationship with Adoption ($r = 0.71$), highlighting trust as the most influential factor in driving adoption behaviour. Infrastructure Access also demonstrates a positive but comparatively moderate relationship with Adoption ($r = 0.49$), suggesting that while infrastructure availability is important, it plays a relatively supportive role compared to digital literacy and trust. Overall, the findings suggest that trust and digital literacy are the key drivers of adoption, with infrastructure acting as an enabling but secondary factor in the adoption of e-governance services in rural contexts.

5.3 Regression Results

Predictor	β	p
Digital Literacy	0.31	<0.001
Infrastructure	0.19	<0.01
Trust	0.41	<0.001

$R^2 = 0.63$

The regression analysis indicates that the model has strong explanatory power, with an R^2 value of 0.63, meaning that 63% of the variance in Adoption is explained by Digital Literacy, Infrastructure, and Trust. Among the predictors, Trust ($\beta = 0.41$, $p < 0.001$) emerges as the strongest and most influential factor, demonstrating a highly significant impact on adoption. Digital Literacy ($\beta = 0.31$, $p < 0.001$) also shows a substantial and statistically significant positive effect, confirming its critical role in enabling individuals to engage with digital services. Infrastructure ($\beta = 0.19$, $p < 0.01$), while significant, has a comparatively smaller effect, indicating that infrastructure access supports adoption but is less influential than trust and digital capability. Overall, the results suggest that adoption is primarily driven by trust and digital literacy, with infrastructure functioning as a foundational but secondary contributor, and the model provides a robust empirical explanation of adoption behaviour.

5.4 Mediation Analysis

Findings show that trust in institutions partly explains how digital skills affect the use of e-governance services. This supports Hypothesis H4. Digital skills directly increase a person's ability and interest in using online services. They also help people trust digital platforms, institutions, and local helpers, which encourages use. People who know how to use digital tools feel more confident and are more open to using e-governance services. They use these services more easily and accept them faster.

This result shows that digital skills support adoption in two ways. They help people directly, and they build trust. Both skill-building and trust-building are important for rural e-governance. Policies should focus on training people and also on building trust in systems and institutions. This will help create digital governance that is inclusive, strong and long-lasting. Another result from the mediation shows that trust is the key link between digital skills and service use. Even if people know how to use digital tools, fear of fraud, data safety issues and low trust in institutions can stop them from using online services. Trust gives real value to digital skills and turns knowledge into action. Digital inclusion is not only about technology. It is a social process. People need belief, confidence and trust in systems and institutions to use digital services in daily life.

The results show that strong institutions and reliable services matter a lot for rural digital governance. When people see that services work well, processes are clear, helpers act honestly, and complaints get solved, trust grows. With this trust, digital skills become more useful because people feel confident to use services on their own without help. In such places, skilled users become independent users of e-governance services.

The findings also show that rural e-governance needs trust and skills to grow together. Skill training alone is not enough. Institutions must also be fair, open and people-friendly. When strong systems support digital learning, people feel included and confident. This kind of complete approach helps digital change bring real participation, inclusion and power to rural communities.

6. DISCUSSION

The study shows that digital skills and trust in institutions matter more than just having internet and devices. Infrastructure alone does not make people use digital services. Many rural people still stay outside the system because they lack skills, confidence, and trust in digital platforms. This means digital inclusion depends on people's ability, feelings, and willingness to use technology, not only on technology itself.

Bridging the digital divide needs more than just new technology. People need skills, awareness, confidence, and trust in digital systems and government services. Training programs, local learning support, and community guidance help people use digital services on their own. Without these, the internet and devices stay unused, and inequality remains.

Common Service Centres play a key role in this process. They help rural people connect with digital government services. But just having CSCs is not enough. What matters is how they work. When CSCs offer clear services, honest support, and friendly help, people trust them and use digital services more. When service quality is poor and trust is weak, digital inclusion does not grow. The results show that digital inclusion is mainly about people, trust, and behaviour, not just technology. E-governance succeeds when citizens feel confident, trust institutions, and use digital services in daily life. It depends on how people feel about the system and how they experience the services. To make digital services work, we must focus on people. We need to build their skills, grow their confidence, and earn their trust. Services must be easy to use, fair, responsive, and helpful. When systems respect people and meet their real needs, they feel included and valued.

People continue to use digital public services only when these systems feel safe, supportive, and useful in their lives. Digital platforms should work like social institutions that support rural communities, help them grow, and give them real power to improve their lives.

7. Policy Implications

1. Digital Literacy and Capacity Building: Develop community digital training and awareness initiatives that enable hands-on skills, confidence, and assist individuals to access e-governance services daily, particularly to first-time and low literacy users.

2. Trust Building and Institutional Credibility: Make grievance redressal improved, provide more detailed information about the delivery of services and hold the service providers responsible so that citizens have more trust in digital platforms and government.

3. Service Quality Standardisation: Establish the same level of quality and performance objectives of CSC services to ensure that they are dependable, consistent, and meet users in all rural locations.

4. Localised and Inclusive Digital Content: Provide multilingual digital interfaces, locally applicable contents and less complex application procedures so that people with diverse languages, education and cultures in rural societies find it easier.

8. CONCLUSION

The study shows that the digital divide in rural India is not only about having technology. It also includes poor internet, low digital skills, and low trust in digital systems. These problems are linked and affect each other. The use of e-government does not depend only on the internet or service platforms. It depends on whether people understand digital tools, trust them, and feel confident using them in daily life. People use digital services when they believe in them and know how to use them in a simple and safe way.

Building internet and digital systems alone cannot create real digital inclusion. People also need simple training, regular support, and confidence to use online services. They must feel safe and sure while using digital platforms.

Rural communities often face low education levels and limited learning opportunities. Because of this, human support matters more than technology. Skills, guidance, and trust play a bigger role than devices or networks in helping people use digital services in real life.

The rural digital gap needs a full and connected solution. Technology alone cannot fix it. We must improve the internet and services, teach people how to use digital tools and support communities' step by step. People should feel confident and safe while using online systems. Trust also matters; services must be clear, fair and honest. Platforms should be simple to use

and easy to understand. When people trust the system and understand it, they use it more. Government, local groups and institutions must work together so these efforts last and truly help rural people.

This change needs a shared and serious effort. E-government should not stay as a digital show only. It must give real value to rural people. It should bring fair access, real benefits and true participation in daily life. Technology alone cannot create this change. Real change happens when digital systems grow with people. When people gain skills, feel safe, and trust the system, technology becomes useful. When services are simple, honest and made for real needs, e-government becomes meaningful. Then it is not just digital progress, it becomes real reform that strengthens democracy, fairness and development in rural India.

9. Limitations and Future Research

Limitations of the Study

Limited Geographic Scope: The study is confined to selected districts of Madhya Pradesh, which may limit the generalizability of the findings to other regions and states of India.

Cross-Sectional Research Design: The use of a cross-sectional design captures perceptions and behaviours at a single point in time, restricting the ability to analyse changes and long-term trends in e-governance adoption.

Self-Reported Data: The reliance on self-reported responses may introduce response bias, social desirability effects, and subjective interpretation by respondents.

Directions for Future Research:

- Future studies may adopt longitudinal research designs to examine changes in digital adoption patterns and trust dynamics over time.
- The use of mixed-method approaches combining quantitative surveys with qualitative interviews and field observations can provide deeper contextual understanding.
- Comparative inter-state studies may be conducted to analyse regional variations in digital divide dynamics and e-governance adoption across different socio-economic and administrative contexts.

REFERENCES

1. van Dijk J. The digital divide. Cambridge: Polity Press; 2020.
2. Norris P. Digital divide: civic engagement, information poverty, and the Internet worldwide. Cambridge: Cambridge University Press; 2001.
3. Venkatesh V, Thong JYL, Xu X. Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS Q.* 2012;36(1):157–178.
4. Parasuraman A, Zeithaml VA, Berry LL. A conceptual model of service quality and its implications for future research. *J Mark.* 1985;49(4):41–50.
5. World Bank. World development report 2016: digital dividends. Washington (DC): World Bank; 2016.
6. Government of India. Digital India annual report 2023. New Delhi: Ministry of Electronics and Information Technology, 2023.
7. Heeks, R. Implementing and managing e-government: an international text. London: SAGE Publications; 2006.
8. Heeks, R. Do information and communication technologies (ICTs) contribute to development? *J Int Dev.* 2010;22(5):625–640.
9. Castells M. The rise of the network society. 2nd ed. Oxford: Wiley-Blackwell; 2010.
10. United Nations Development Programme. Human development report 2019: beyond income, beyond averages, beyond today—inequalities in human development in the 21st century. New York: UNDP; 2019.
11. United Nations. E-government survey 2020: digital government in the decade of action for sustainable development. New York: United Nations Department of Economic and Social Affairs; 2020.
12. Davis FD. Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Q.* 1989;13(3):319–340.
13. Rogers EM. Diffusion of innovations. 5th ed. New York: Free Press; 2003.
14. Bélanger F, Carter L. Trust and risk in e-government adoption. *J Strateg Inf Syst.* 2008;17(2):165–176.
15. Carter L, Bélanger F. The utilisation of e-government services: citizen trust, innovation, and acceptance factors. *Inf Syst J.* 2005;15(1):5–25.
16. Jaeger PT, Thompson KM. E-government around the world: lessons, challenges, and future directions. *Gov Inf Q.* 2003;20(4):389–394.
17. OECD. Bridging the digital divide: include, upskill, innovate. Paris: OECD Publishing; 2018.
18. Meijer A, Curtin D, Hillebrandt M. Open government: connecting vision and voice. *Int Rev Adm Sci.* 2012;78(1):10–29.

Creative Commons License

This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution–NonCommercial–NoDerivatives 4.0 International (CC BY-NC-ND 4.0) License. This license permits users to copy and redistribute the material in any medium or format for non-commercial purposes only, provided that appropriate credit is given to the original author(s) and the source. No modifications, adaptations, or derivative works are permitted.

About the corresponding author

Ankit Singh Bisen is a Research Scholar at Pt. JNIBM, Samrat Vikramaditya University, Ujjain, Madhya Pradesh, India. His academic interests focus on management studies and contemporary research issues, with a strong inclination toward analytical inquiry and interdisciplinary approaches in higher education research.