

Navigating the Digital Maze: Challenges Faced by Citizens in Accessing Kerala's E-Government Services

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Abstract—This study explores the major obstacles that prevent citizens from effectively utilizing Kerala's digitally delivered public services, which were introduced to enhance efficiency, transparency, and accessibility. Despite notable progress in e-governance, many users still struggle with limited digital literacy, inadequate access to stable internet and devices, frequent technical glitches such as OTP failures and login errors, insufficient regional language support, and delays in service processing. Survey findings indicate that although citizens recognize the benefits of digital platforms, many continue to rely on intermediaries due to the complexity and perceived unreliability of online procedures. Younger, digitally skilled individuals face fewer challenges compared to older and rural populations. The research underscores the need for targeted digital literacy initiatives, stronger digital infrastructure, multilingual interfaces, enhanced technical stability, and improved awareness campaigns. Strengthening grievance redressal systems and designing more user-friendly portals are vital steps toward ensuring inclusive and seamless access to Kerala's e-government services.

Index Terms—Akshaya Centre, Digital Maze, E-Government platforms, Digital infrastructure, and E-Government Services

I. INTRODUCTION

Kerala has long been recognized as a leader in digital governance in India, with a wide range of e-government services designed to make public service delivery more efficient, transparent, and citizen-friendly. From online certificates and utility payments to digital grievance mechanisms, these platforms aim to simplify administrative processes and reduce the need for physical visits to government offices. However, despite these progressive initiatives, many

citizens continue to experience significant challenges while attempting to access and use these services effectively. Issues such as digital illiteracy, technical glitches, inadequate infrastructure, language barriers, and low awareness often stand in the way of smooth digital interaction. This article, titled "Navigating the Digital Maze: Challenges Faced by Citizens in Accessing Kerala's E-Government Services," examines these obstacles in detail and highlights the gaps that must be addressed to ensure truly inclusive digital governance in the state.

II. STATEMENT OF THE PROBLEM

Despite Kerala's notable progress in digital governance and the introduction of various e-Government platforms aimed at ensuring efficient, transparent, and inclusive public service delivery, a substantial portion of the population continues to struggle in accessing and effectively utilizing these services. The promise of e-Governance—to make government services readily available to all citizens irrespective of socio-economic status or geographical location—remains only partially fulfilled. In reality, numerous barriers, such as limited digital literacy, inadequate internet infrastructure, language constraints, frequent technical glitches, and insufficient awareness of available online services, prevent citizens, particularly those from rural and marginalized communities, from fully benefiting from these digital initiatives. Moreover, inconsistencies in service quality, concerns over data privacy, and the absence of robust support and grievance redressal mechanisms further undermine user trust and satisfaction. This study seeks to systematically identify and analyze the challenges faced by citizens

in accessing Kerala's e-Government services, with the aim of offering insights that can guide policy reforms and enhance the inclusivity, reliability, and overall effectiveness of digital governance in the state.

III. SIGNIFICANCE OF THE STUDY

The study on the problems faced by citizens in accessing Kerala's e-Government services is highly significant in the context of evolving public administration and the ongoing digital transformation initiatives in the state. Although Kerala is widely regarded as one of India's most advanced regions in terms of human development, literacy, and progress in digital governance, gaps persist in ensuring universal and equitable access to digital public services. Evaluating these challenges provides critical insights into how even technologically forward states encounter barriers in achieving truly inclusive service delivery. By examining issues such as limited internet availability, digital illiteracy, language barriers, usability concerns, technical glitches, and low awareness of available e-services, this study can assist policymakers, government departments, and IT service providers in developing more accessible, citizen-friendly, and efficient digital platforms. The significance of this study extends beyond improving service efficiency and transparency; it plays a vital role in promoting social equity by ensuring that vulnerable and marginalized communities are not left behind in the digital shift. The findings can also serve as a valuable reference for other Indian states and developing regions striving to strengthen their e-Governance systems. By identifying shortcomings and proposing actionable strategies for improvement, this study contributes to the larger goals of good governance, digital inclusion, and sustainable development in Kerala.

IV. SCOPE OF THE STUDY

The scope of this study is limited to identifying and analyzing the challenges encountered by the general public in accessing various e-services offered by Kerala's state government departments. It focuses on key areas such as digital literacy levels, availability and reliability of internet connectivity, awareness and understanding of government e-portals, language and usability issues, and technical difficulties faced during

online service transactions. The research is based on responses collected from randomly selected individuals to understand their real-life experiences with e-government platforms. While the study does not cover internal administrative processes or technical backend systems, it aims to offer practical insights that can help enhance the accessibility, user experience, and overall effectiveness of Kerala's e-government services.

V. REVIEW OF LITERATURE

The existing literature on Kerala's E-Government services highlights several challenges faced by citizens in accessing digital public services. Studies reveal that digital illiteracy, infrastructural inadequacies, lack of awareness, language barriers, and technical issues significantly hinder the effective utilization of E-Government platforms. E-Governance Ramesh and Pillai (2019) observed that inadequate digital skills among citizens, particularly the elderly and rural population, restrict effective usage of online services. George and Mathew (2021) identified poor internet connectivity and server-related issues as major infrastructural barriers. Similarly, Joseph and Nair (2018) reported low awareness regarding E-Government services such as e-District and Sevana among citizens. Kumar and Menon (2020) highlighted usability issues including poor interface design, login problems, and navigation difficulties in Kerala's E-Government portals. Varghese and Thomas (2022) emphasized trust and security concerns as major factors discouraging citizens from adopting digital platforms. Rajeev and Suresh (2017) pointed out operational inefficiencies and high service charges in Akshaya Centres, while Shalini and Reghu (2019) stressed the importance of regional language support for improving inclusivity. Further, Francis and Baby (2020) identified accessibility challenges faced by persons with disabilities, and Najeel and Paul (2018) reported delays in application processing due to inefficient backend systems. John and Sebastian (2021) also highlighted the existence of a digital gender gap affecting women's access to E-Government services. Overall, the reviewed studies indicate that technological, infrastructural, social, and operational barriers continue to limit the effective implementation and accessibility of E-Government services in Kerala.

VI. OBJECTIVES OF THE STUDY

- To identify the major challenges encountered in the delivery of e-services by government departments in Kerala

VII. RESEARCH METHODOLOGY

The present study adopts a descriptive and analytical research design to examine the challenges faced by citizens in accessing Kerala's e-Government services. Both primary and secondary data were used for the study. Primary data were collected from 100 citizens using Kerala's e-Government services in the Thiruvananthapuram district through a structured questionnaire. Secondary data were gathered from journals, articles, theses, reports, and other relevant published sources. The study was conducted over a period of six months, from June to November 2025. Respondents were selected using the incidental sampling method.

VIII. RESULTS AND DISCUSSION

Table: 1 Demographic Profile of Respondents

Basis of Classification	Classification	No. of Respondents	Per Cent
Gender	Male	40	40
	Female	60	60
	Total	100	100
Age Group	Below 25	42	42
	25-40	30	30

Table: 2 Challenges Faced by Citizens in Accessing E-Government Services

Challenges	Level of Problem	No. of Respondents	Per Cent	Mean Score
Lack of Awareness of availing E-Govt. Service	No Problem	18	18	2.22
	Mild Problem	42	42	
	Severe Problem	40	40	
Lack of language options	No Problem	21	21	2.27
	Mild Problem	31	31	
	Severe Problem	48	48	
OTP Delivery & Login Issue	No Problem	12	12	2.46
	Mild Problem	30	30	
	Severe Problem	58	58	
Inordinate delay in the Grievance Redressal Mechanism	No Problem	16	16	2.39
	Mild Problem	29	29	
	Severe Problem	55	55	
Non-availability of Updated Application Status Information	No Problem	16	16	2.3
	Mild Problem	38	38	
	Severe Problem	46	46	
	No Problem	12	12	2.27

Educational Qualification	41-50	20	20
	Above 50	8	8
	Total	100	100
	Up to Higher Secondary	25	25
	Graduate	38	38
	Post Graduate	32	32
	Professionals	5	5
	Total	100	100

Source: Primary Data

Table 1 presents the demographic profile of citizens availing Kerala's e-Government services based on gender, age group, and educational qualification. The gender-wise classification reveals that female respondents constitute the majority, accounting for 60 per cent of the total respondents, whereas male respondents represent 40 per cent. This indicates a higher participation of female citizens in availing Kerala's e-Government services. With respect to age group, the highest proportion of respondents (42 per cent) belongs to the age group below 25 years, followed by 30 per cent in the 25–40 years category. Respondents in the age group of 41–50 years account for 20 per cent, while only 8 per cent belong to the above 50 years category. This shows that younger citizens are the major users of Kerala's e-Government services.

Lack awareness about rules and procedures by Akshaya Centres	Mild Problem	49	49	
	Severe Problem	39	39	
Server busy	No Problem	8	8	2.51
	Mild Problem	33	33	
	Severe Problem	59	59	
Difficulty in uploading supporting documents	No Problem	17	17	2.46
	Mild Problem	20	20	
	Severe Problem	63	63	
Digital Illiteracy	No Problem	11	11	2.61
	Mild Problem	17	17	
	Severe Problem	72	72	
High service charges	No Problem	35	35	1.8
	Mild Problem	42	42	
	Severe Problem	23	23	

Source: Primary Data

The table reveals that citizens face several challenges while accessing E-Government services. Among the various problems identified, ‘Digital Illiteracy’ emerged as the most severe challenge with the highest mean score of 2.61, as 72 per cent of the respondents reported it as a severe problem. This indicates that a large section of citizens lacks the necessary digital skills to effectively use E-Government platforms. Similarly, ‘Server Busy’ was identified as another major issue with a mean score of 2.51, where 59 per cent of the respondents experienced it as a severe problem, highlighting technical inefficiencies in the system.

Further, ‘OTP Delivery and Login Issues’ and ‘Difficulty in Uploading Supporting Documents’ also recorded high mean scores of 2.46 each, with 58 per cent and 63 per cent of respondents respectively reporting them as severe problems. This suggests that authentication procedures and document submission processes create considerable inconvenience for users. In addition, ‘Inordinate Delay in Grievance Redressal Mechanism’ (mean score 2.39) and ‘Non-availability of Updated Application Status Information’ (mean score 2.30) indicate dissatisfaction among citizens regarding service responsiveness and transparency.

The study also shows that ‘Lack of Language Options’ and ‘Lack of Awareness about Rules and Procedures by Akshaya Centres’ both obtained a mean score of 2.27, indicating moderate to severe difficulties faced by users due to communication barriers and insufficient guidance. Moreover, ‘Lack of Awareness of Availing E-Government Services’ recorded a mean score of 2.22, revealing that many citizens are still

unaware of the availability and usage procedures of such services. Comparatively, ‘High Service Charges’ was found to be the least severe challenge with the lowest mean score of 1.80, though a notable proportion of respondents still considered it a problem. Overall, the findings indicate that technological barriers, lack of digital skills, and system-related inefficiencies are the major challenges faced by citizens in accessing E-Government services.

IX. FINDINGS OF THE STUDY

- The majority of the respondents (60 per cent) availing Kerala’s E-Government services are females, while males constitute 40 per cent, indicating higher participation of female citizens in accessing such services.
- Most of the respondents (42 per cent) belong to the age group below 25 years, followed by 30 per cent in the 25–40 years category, showing that younger citizens are the major users of E-Government services in Kerala.
- A considerable proportion of respondents face challenges while accessing E-Government services, indicating the existence of technological, operational, and awareness-related barriers.
- Digital illiteracy emerged as the most severe challenge faced by citizens, revealing that many users lack adequate digital skills and technological knowledge to effectively access online government services.
- Server-related issues, such as “Server Busy,” were identified as another major problem,

indicating technical inefficiencies and inadequate system infrastructure.

- OTP delivery and login issues create significant inconvenience for users during the authentication process, affecting the smooth accessibility of services.
- Difficulty in uploading supporting documents was reported as a major issue, reflecting the complexity and technical limitations associated with online application procedures.
- Respondents expressed dissatisfaction regarding the grievance redressal mechanism due to inordinate delays in resolving complaints and service-related issues.
- Non-availability of updated application status information was identified as a challenge, indicating a lack of transparency and inadequate communication in service delivery.
- Lack of language options in E-Government portals creates communication barriers for users, particularly for those who are not comfortable with the available language interface.
- Insufficient awareness regarding rules and procedures among Akshaya Centres was identified as a moderate challenge, affecting the quality of assistance provided to citizens.
- Lack of awareness about the availability and usage of E-Government services among citizens continues to hinder effective utilization of digital government platforms.
- High service charges were found to be the least severe challenge compared to other issues, though a section of respondents still considered it a problem.
- Overall, the study reveals that digital illiteracy, technical inefficiencies, authentication problems, and lack of awareness are the major challenges faced by citizens in accessing Kerala's E-Government services.

X. SUGGESTIONS OF THE STUDY

- The Government should implement comprehensive digital literacy programmes to enhance citizens' digital skills and improve their ability to access E-Government services effectively.
- Adequate technical infrastructure should be developed to reduce server-related issues and

ensure uninterrupted access to E-Government platforms.

- Authentication mechanisms such as OTP delivery and login systems should be strengthened to provide smooth and reliable user access.
- E-Government portals should be simplified to facilitate easy uploading of supporting documents and improve user convenience.
- A faster and more efficient grievance redressal mechanism should be established to address citizens' complaints within a reasonable time frame.
- Government departments should ensure regular updating of application status information to improve transparency and citizen satisfaction.
- Multiple language options, particularly regional language support, should be incorporated into E-Government portals to overcome communication barriers.
- Training and awareness programmes should be conducted for Akshaya Centre staff to improve their knowledge regarding rules, procedures, and service delivery mechanisms.
- Awareness campaigns should be organized through media, educational institutions, and local self-government bodies to educate citizens about the availability and benefits of E-Government services.
- User-friendly interfaces and simplified procedures should be introduced to encourage greater participation of elderly and less technologically skilled citizens.
- Periodic monitoring and evaluation of E-Government services should be undertaken to identify operational deficiencies and improve service quality.
- Service charges associated with E-Government services should be regulated and kept affordable to ensure inclusive access for all sections of society.

XI. CONCLUSION

The study titled "Navigating the Digital Maze: Challenges Faced by Citizens in Accessing Kerala's E-Government Services" concludes that although E-Government services have significantly improved the accessibility and convenience of public service delivery in Kerala, citizens continue to face several challenges in effectively utilizing these services. The

findings reveal that digital illiteracy, server-related issues, OTP and login problems, difficulty in uploading documents, and delays in grievance redressal are the major obstacles experienced by users. In addition, lack of awareness, inadequate language options, and insufficient guidance from service centres further limit the effective adoption of E-Government platforms. The study highlights the need for improving digital infrastructure, enhancing digital literacy, strengthening technical support systems, and increasing citizen awareness to ensure inclusive, transparent, and efficient delivery of E-Government services in Kerala.

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