THE CHANGING TRENDS OF E-GOVERNANCE UNDER E-UNNAT: A STUDY OF DISTRICT KULGAM (J&K)

Thesis Submitted For the Award of the Degree of

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**in**

Public Administration

By

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2025

DECLARATION

I hereby declare that the Ph.D. Thesis entitled *"THE CHANGING TRENDS OF E-GOVERNANCE UNDER E-UNNAT: A STUDY OF DISTRICT KULGAM (J&K)"* in Lovely Professional University, Punjab was carried out by me for the degree of Doctor of Philosophy in Public Administration under the guidance and supervision of Prof. (Dr.) Manvendra Singh. The interpretations put forth are based on my reading and understanding of the original texts and they are not published anywhere in the form of books, monographs or articles. The other books, articles and websites, which I have made use of are acknowledged at the respective place in the text. For the present thesis, which I am submitting to the University, no degree or diploma or distinction has been conferred on me before, either in this or in any other University.

Place: LPU   **Research Scholar**
                                                             Muzamil Shafi
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Date: 24-06-2025

CERTIFICATE

This is to certify that the work incorporated in the thesis *"THE CHANGING TRENDS OF E-GOVERNANCE UNDER E-UNNAT: A STUDY OF DISTRICT KULGAM (J&K)"* submitted by Muzamil Shafi bearing registration no. 12105744 is an original piece of research work done under my guidance and supervision in partial fulfillment for the award of the degree of PhD. in Public Administration to the school of Liberal and Creative Arts (Social Sciences and Languages), Department of Government and Public Administration. The candidate has fulfilled all the statutory requirements for the submission of this thesis. Such materials as has been obtained from other sources have been duly acknowledged in the thesis.

Place: LPU   **Research Guide**

Prof. (Dr.) Manvendra Singh

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Muzamil Shafi

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ADC	Additional Deputy Commissioner
BDO	Block Development Officer
BPR	Business Process Reengineering
CSC	Common Service Centre
DC	Deputy Commissioner
DPO	District Panchayat Officer
G2B	Government-to-Business
G2C	Government-to-Citizens
G2G	Government-to-Government
GGI	Good Governance Index
ICT	Information and Communication Technology)
IT	Information Technology
IT&SS	Information Technology and Support System
JaKeGA	Jammu and Kashmir E-Government Agency
J&K	Jammu and Kashmir
MNC	Multi-National Companies
NIC	National Informatics Centre
NGO	Non-Governmental Organization
PUPREB	Public Sector Process Rebuilding
SCA	Service Centre Agency
SDA	State Development Agency

SMART	Simple, Moral, Accountable, Responsive and Transparent
UNESCO	United Nations Economic and Social Council
UTAUT	Unified Theory of Acceptance and Use of Technology
VLE	Village Level Entrepreneur
TAM	Technology Acceptance Model

ABSTRACT

This study explores the awareness, usage, and challenges related to e-UNNAT, a digital platform aimed at improving government service delivery, in the district of Kulgam of J&K. A total of 300 common citizens and 20 key respondents, including district administration officials, participated in the study. The primary objective was to assess the familiarity of the general public with e-UNNAT, their experiences with accessing its services, and the barriers that hinder its effective usage. The findings reveal that nearly 50% of respondents are familiar with e-UNNAT and have accessed various services through the platform. However, while this indicates a moderate level of awareness and usage, a significant portion of the population remains unaware of its full potential and available services. Field findings on e-UNNAT revealed valuable insights into user experiences and interactions with the platform. A notable number of respondents required assistance while using e-UNNAT, often relying on CSC/Khidmat Centres for support. Despite this, most users preferred e-UNNAT over traditional physical service methods, showing a strong inclination towards digital platforms. While the majority of users found the portal user-friendly, some mixed feedback on the language clarity was noted, with a portion remaining neutral on the issue. Concerning the platform's effectiveness, most users did not perceive a lack of awareness as a significant barrier. However, concerns regarding privacy and data security were raised, though not universally shared. Many respondents expressed willingness to recommend e-UNNAT to others, though some reservations remained. Suggestions for improvement included providing more user-friendly tutorials, offering multilingual support, and enhancing data security. Strengthening digital infrastructure, expanding the portal's reach to all rural areas, and increasing community engagement were also identified as key measures to enhance the platform's accessibility and effectiveness in District Kulgam.

Key Words: Accessibility, Development, Governance, Transparency

CHAPTER 1
INTRODUCTION

1.1 Introduction

"Government offices are places of public trust and unless we hold them in that spirit, we are likely to use them for our own profit and deny to the country efficiency and honest service, our motto should be service at any cost and not power at any price".

S. Radhakrishnan

In the view of *Kehone and Nye (2000)*, "governance involves both formal and informal processes and institutions that guide and control the collective behavior of a group." In the modern times, with rapid technological revolution, when whole worldhas become one village, direct communication with different sorts of public is still one of the basic conditions of any society, to run its administration. Administration is necessary in any organisation to achieve their best results. The digital influx in administration has positively affected the governance set-up in the positive orientation. Digitalization has affected every socio-economic facet of social existence. In the realm of welfare model adopted by Government of India, it becomes important that we should adopt appropriate governance approach and techniques to run the affairs of state. The dawn of ICT (Information and Communication Technology) has revolutionized the globe. ICT has brought an immense opportunity to the administrative systems across the globe for the effective and transparent functioning *(Pankaj, 2010)*.

The globalization and digitalization in the governance approach underwent into the radical transformation. Keeping pace with digitalization, the Government of Jammu and Kashmir have given primacy to '*Digitalization of Services*' under the shadow of e-UNNAT. Launched on July-14-2022 by state Government of Jammu and Kashmir, e-UNNAT is the online portal that provides a centralized platform to the people. e-UNNAT is not new in the realm of J&K governance, but it the updated version of eunnat.jk.gov.in portal. Under this platform, citizens can register for various services on the centralized portals such as birth or death certificates, income certificates, category certificates, unemployment certificates and

other. During the registration of services, the portal gives a unique identifier to user while being transparent *(Economic Times, 2023)*. Within this context, the chapter investigates the foundational structure of the study. It systematically addresses key research elements, such as objectives, methodology, theoretical framework, and literature review. The content is organized into relevant themes to ensure logical alignment and appropriateness of the subject matter, providing a comprehensive overview of the study's framework.

1.2 Rationale of the Study

The PhD thesis titled "*The Changing Trends of e-Governance under e-UNNAT: A Study of District Kulgam (J&K)*" is highly relevant and justified, given the transformative impact of IT-enabled governance in Jammu and Kashmir (J&K), a region that has faced unique socio-political and infrastructural challenges. Despite frequent internet shutdowns and restrictions over the past decade, J&K has made important developments in leveraging Information Technology (IT) to enhance public service delivery. The e-UNNAT initiative, a flagship program under the Digital India framework, has been instrumental in integrating rural areas like Kulgam into the digital ecosystem, promoting e-governance, and bridging the digital divide. This study is grounded in the need to critically evaluate the role of e-UNNAT in transforming governance mechanisms in J&K, particularly in the context of its successes and challenges.

According to the recent government report, over 400 government services in Jammu and Kashmir have been digitized, with a significant focus on rural areas through initiatives like e-UNNAT. However, data from the "*National Family Health Survey (NFHS-5)*" reveals that only 33% of households in J&K have access to the internet, highlighting the persistent digital divide. Additionally, the *Good Governance Index 2021* ranks J&K lower in governance and service delivery, underscoring the need for targeted interventions like e-UNNAT to address these gaps. Khidmat Centers in Kulgam encounter operational hurdles, including unreliable internet access, limited digital literacy, and insufficient infrastructure, which hinder e-governance efforts, as noted in a 2022 Jammu and Kashmir e-Governance Agency (JaKeGA) report. Nevertheless, the expansion of digital services, evidenced by 977 operational Khidmat Centers across the region, underscores e-governance's capacity to revolutionize public service delivery.

The rationale of this study is further strengthened by J&K's proactive stance in adopting IT-enabled governance amidst its unique challenges. The region's commitment to overcoming logistical and infrastructural barriers is evident in its efforts to ensure that public services reach citizens efficiently and effectively. However, the rollout of e-UNNAT faces significant obstacles, such as recurrent internet disruptions, inconsistent connectivity, and constrained local administrative capabilities. The present research primary aims to critically analyze the role of e-UNNAT in enhancing service delivery metrics such as accessibility, responsiveness, and transparency, while identifying barriers that hinder its full potential. By examining the implementation of e-UNNAT within the specific socio-political and infrastructural context of J&K, the research seeks to uncover insights into how IT-enabled governance can be optimized in challenging environments.

Overall, this research enriches the wider discussion on digital governance in India, providing insightful lessons and actionable recommendations for policymakers and practitioners. It underscores the importance of context-specific strategies and adaptive approaches in realizing the full potential of IT in public service delivery, particularly in regions with unique socio-political dynamics like Jammu and Kashmir. By concentrating on District Kulgam, this study offers a detailed micro-level examination of the achievements, obstacles, and potential of e-governance through e-UNNAT, aiming to ensure digital initiatives are inclusive, effective, and attuned to the needs of underserved populations.

1.3 Theoretical Framework of the Study

"E-governance (also known as electronic governance) refers to the use of "Information and Communication Technology (ICT)"to enhance the management and provision of government services." This method seeks to improve the effectiveness of governmental processes, facilitating better communication and service provision to meet the needs of the public. By leveraging digital tools, e-governance simplifies and streamlines administrative processes, benefiting not only the government but also businesses and individuals at all levels of society. Keohane and Nye (2000) define governance as the framework of formal and informal institutions that guide and constrain the collective actions of a community. Government, as a

subset of governance, operates with authority and enforces legal obligations on its citizens. E-governance emerged as a solution to modernize and simplify governmental procedures, making them more transparent, efficient, and accessible to a broader population. This shift has been transformative, as it allows citizens to engage with government services more conveniently, improving the overall functioning of public administration. Through e-governance, governance processes are now more adaptable, interactive, and inclusive.

Against this backdrop, the Government of India introduced the Information Technology Act of 2000, which characterizes e-governance as the application of web-based internet tools and other information technologies by the government. These tools, "combined with relevant processes, aim to improve access to and delivery of government information and services for the public, agencies, and other government entities." The act also "seeks to enhance government operations by increasing effectiveness, efficiency, service quality, or enabling transformation." E-governance focuses on leveraging ICT across governance levels and the public sector to improve administrative processes (Bedi et al., 2000; Srivastava, 2001). Shah defines e-governance as the utilization of ICT to enhance the efficiency, effectiveness, transparency, and accountability of governance operations, while also empowering citizens by providing them with access to and the ability to use information.

In the above context, *Yadav & Singh (2012)* have conceptualized e-governance as an administrative marvel, underpinned by four crucial pillars: Connectivity, Knowledge, Database, and Capital. These pillars are essential for ensuring the effective delivery of government services through digital platforms.

Connectivity: Connectivity is the foundational element of e-governance. It ensures that citizens have access to government services online, which requires a robust and reliable internet infrastructure. Without strong connectivity, e-governance initiatives would fail to reach the masses, undermining the very purpose of digital governance. It involves not only internet access but also seamless communication channels between government agencies and citizens.

Knowledge: Knowledge refers to the technical expertise required to manage and operate e-governance systems. Governments must employ skilled professionals proficient in

information technology (IT) to ensure the smooth functioning of digital platforms. These experts must be capable of troubleshooting, maintaining, and upgrading e-governance systems. Without this specialized knowledge, the systems could face operational challenges, leading to inefficiency and delays in service delivery.

Database: Database is critical in e-governance as it supports the sharing and retrieval of information. A well-structured database containing accurate and up-to-date government-related data allows citizens to access services and information quickly and efficiently. The database must be secure, user-friendly, and comprehensive to facilitate smooth e-governance operations.

Capital: Lastly, Capital refers to the financial resources required to establish and maintain e-governance systems. It can come from both public and private sources, such as government budgets or partnerships with private enterprises. Sufficient capital is necessary for the development, implementation, and continuous improvement of e-governance infrastructure and services. Together, these pillars enable the efficient, transparent, and accessible delivery of government services through digital platforms.

Considering the scope and utility of ICT, "*Anderson* has proposed the concept of PUPREB (Public Sector Process Rebuilding) to reflect the needs of citizens, officials and policy makers." In his view, without navigating and commitment, the adoption of ICTs cannot deliver better services *(Anderson, 1999)*. Moreover, in the recent times, the modern era has witnessed pool of challenges ranging from poverty to governance. To overcome these challenges, state must adopt the effective public administration approach and inclusive governance institutions at every stratum of administrative hierarchy. In this context, ICT plays a crucial role in governance. While its use was predominantly limited to the private sector until the mid-1990s, its application has significantly expanded over the last decade. E-governance empowers citizens by enabling them to understand a wide range of policies and express their views on policy matters. It ensures that individuals can access public services at their convenience, anytime and anywhere, thereby enhancing transparency and inclusivity *(Anderson et al., 2016)*.

In the above background, e-governance can be presented in the given framework.

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                          e-governance

           Role of e-governance        Focused Areas

           Public Service Delivery     Connectivity Issues

                Transparency              Knowledge

               Accountability             Data Base

           Responsive Governance          Capital
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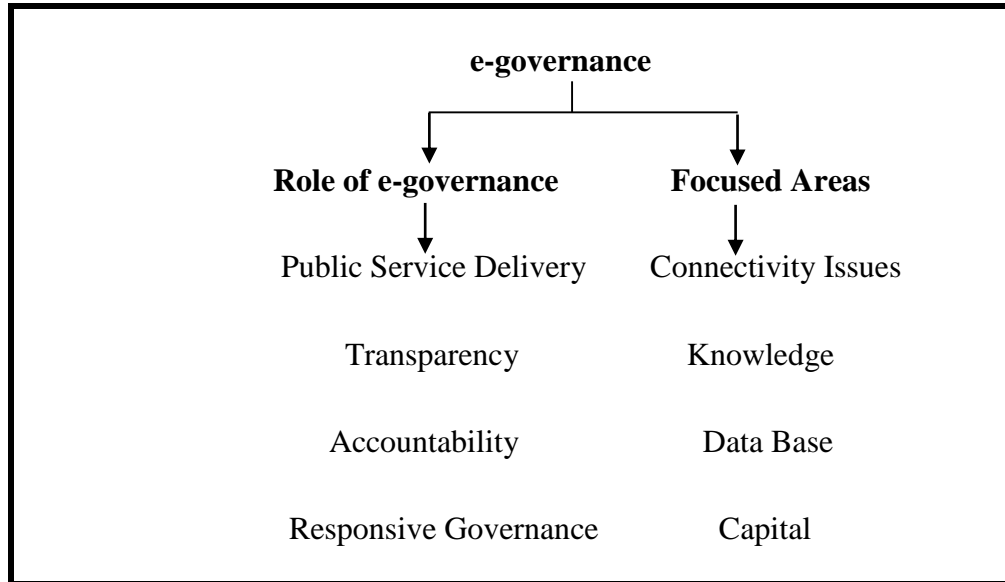
UNESCO, in its policy framework, describes e-governance as a broader concept than e-government, as it incorporates new dimensions of citizenship, emphasizing both needs and responsibilities. Furthermore, e-governance seeks to empower citizens by involving them in policymaking and improving service delivery mechanisms. According to *World Bank*, e-governance has the ability to transforms relations with citizens, businesses and governance institutions at large. Therefore, in the above framework, e-governance is aimed at delivering public services in cost-effective and real time mode and makes governance institutions transparent and responsive in delivering public services. In context to utility of Information and Communication Technology, there are spacious array of efficacy of ICT in different socio-economic facets of social existence. The applicability of Information Technology is supported by range of theories including '*Unified Theory of Acceptance and Use of Technology (UTAUT)*'.

The *"Unified Theory of Acceptance and Use of Technology (UTAUT)"*, introduced by Venkatesh et al. in their study *"User Acceptance of Information Technology: Toward a Unified View"*, identifies key factors affecting users' intentions to adopt ICT. It highlights four primary constructs: performance expectancy, effort expectancy, social influence, and facilitating conditions, which are critical in shaping individuals' acceptance and utilization of technology *(Venkatesh et al., 2003)*. The model i.e. UTAUT was formulated by synthesizing eight existing

models, including the Technology Acceptance Model (TAM), which posits that users' decisions to adopt new technologies are influenced by various factors determining how and why they choose to use them *(David, 1989).* In the above milieu, the enabling environment and supportive conditions are must for garnering greater efficiency in the governance operations using the ICT.

In the above background, the present research laid focus upon how e-governance more importantly e-UNNAT will help in delivering public services in district Kulgam. More importantly how UTAUT model to be applied to analyze the role of e-UNNAT in public service delivery will be explored.

1.4 Research Objectives

Research objectives define the specific goals a study aims to achieve, guiding the research process and ensuring focus. They provide a clear direction, outlining what the researcher intends to investigate, explore, or analyze. The significance of research objectives lies in their ability to set a structured path for data collection, analysis, and interpretation. Well-defined objectives help identify key variables, determine the methodology, and ensure that the research addresses relevant questions. They also contribute to the clarity and relevance of the findings, enabling researchers to draw meaningful conclusions and offer practical recommendations for future studies or policy improvements.

The first objective of this research is "*To investigate the evolution of e-UNNAT governance initiative in public administration with special reference to district Kulgam*". This involves examining the development and implementation of the e-UNNAT initiative, a digital governance model aimed at improving public service delivery through technology. The study also aims to track its historical progression, explore the policies and strategies adopted for its deployment, and analyze the outcomes in terms of efficiency, transparency, and citizen engagement. Special attention is being laid upon to the unique challenges and successes faced in the district, providing insights into the broader implications for e-governance initiatives.

The second objective "*To analyze the role of e-UNNAT in providing public service delivery in district Kulgam*" focuses on evaluating how the initiative has transformed the ease of access and eminence of government services in the region. This research also examines the

specific services offered through e-UNNAT, assessing their efficiency, reach, and effectiveness in meeting the needs of citizens. The study also explores how the digital platform has streamlined administrative processes, improved transparency, and reduced delays in service delivery. Additionally, it investigated the challenges faced by both government officials and citizens in adopting this technology, providing insights into the broader implications of e-governance in rural or less-digitally developed areas like Kulgam.

The third objective of this research is "*To evaluate the challenges faced by the citizens in availing the public services under e-UNNAT*". This involves identifying and analyzing barriers such as limited digital literacy, inadequate internet connectivity, technical issues with online platforms, and lack of awareness about available services. The study aims at understanding how these challenges affect the overall user experience and hinder the effective utilization of e-governance systems, particularly in remote areas like D.H. Pora and Devsar areas of district Kulgam.

The fourth objective of this research is "*To suggest effective measures for enhancing the e-governance mechanism in the region*". This involves the identifying key areas for improvement based on the challenges faced by both citizens and government authorities in implementing e-UNNAT. The study outlines the strategies such as improving digital literacy, strengthening internet infrastructure, simplifying online processes, and increasing awareness of available services. Additionally, it also recommends policy changes and technological upgrades to ensure a "more inclusive, efficient, and user-friendly e-governance framework in the region."

1.5 Research Questions

The study titled *"THE CHANGING TRENDS OF E-GOVERNANCE UNDER E-UNNAT: A STUDY OF DISTRICT KULGAM (J&K)" "*seeks to investigate the role of e-governance initiatives, with a particular focus on the e-UNNAT system, in revolutionizing public service delivery within the region." This research aims to analyze the impact of e-UNNAT in enhancing transparency, efficiency, and accessibility in government services, ultimately improving citizen experiences in Kulgam. The research questions formulated for this study are crucial in guiding the investigation and exploring various facets of e-governance, including its development, role

in service delivery, challenges faced by citizens, and potential areas for enhancement. These questions "provide a structured approach to assess the current state of the e-UNNAT system and its effectiveness." Through both primary and secondary data sources, the study delves into how e-UNNAT has evolved in the district, its transformative impact on public services, and the barriers citizens face in utilizing these services. The significance of these research questions lies in their "ability to identify gaps and challenges in the implementation of e-governance, offering valuable insights into the future improvements needed for a more efficient and inclusive public administration system." This research aims to contribute practical recommendations for optimizing the e-UNNAT framework to better serve the citizens of Kulgam. In the given context, the set of research questions in synchronization with the research objectives are mentioned below:

- How has the e-UNNAT governance initiative evolved in district Kulgam, and what impact has this evolution had on public administration in the region?
- How has the implementation of e-UNNAT transformed public service delivery in district Kulgam, and what are its key benefits to citizens?
- What challenges do citizens face in accessing public services through e-UNNAT in district Kulgam, and how do these challenges affect service delivery?
- What measures can be implemented to "enhance the effectiveness of the e-UNNAT governance system in district Kulgam and improve service delivery for citizens?"

1.6 Research Methodology

Research methodology refers to the structured approach and procedures followed during a research project, providing a framework for data collection, analysis, and interpretation. It involves choosing the right research design, methods, and tools to address research questions or test hypotheses. The importance of research methodology lies in its role in ensuring the validity, reliability, and credibility of the research outcomes. It provides a structured framework for researchers, promoting consistency and reproducibility, while also encouraging critical thinking and logical reasoning. By following sound methodologies, researchers can produce trustworthy results that "contribute to the advancement of knowledge and understanding in their field."

Nature of the Study: This study examines the "impact of e-UNNAT on improving public service delivery in Kulgam district, Kashmir." Adopting an explorative and analytical framework, "the research employs a mixed-methods approach, integrating qualitative and quantitative techniques." The qualitative analysis relies on secondary data and insights from key respondents, while the quantitative aspect provides a structured evaluation, enabling a thorough understanding of the subject and drawing significant conclusions. On the other hand, the quantitative aspect is derived from primary data collected through surveys or direct responses from participants, providing a statistical foundation for the analysis of "public service delivery and the impact of e-UNNAT in the region."

Universe of study: The universe of a study refers to the complete set of elements or subjects that meet the inclusion criteria for a particular research project. This universe is defined by the research question, which specifies the target subjects or objects of interest. The universe can consist of individuals, groups, organizations, or even specific objects depending on the focus of the study. In this research, the universe includes the population of Kulgam district, specifically drawn from three tehsils: Kulgam, Damhal Hanjipora and Devsar. The selection of these three tehsils is aimed at ensuring a more representative and generalized understanding of the study's subject, providing a broader view of the role of e-UNNAT in public service delivery across the district. The Kulgam district, and specifically the three tehsils of Kulgam, D H Pora, and Devsar, were selected as the universe of the study for several important reasons.

- Firstly, the researcher, being a native of Kulgam, is already well-acquainted with the geography and administrative framework of the district. This familiarity ensures ease in data collection and minimizes challenges related to logistical issues.

- Secondly, the researcher's financial situation allows for cost-effective data collection, as they do not have alternative sources of income, making the research process more feasible without significant financial strain.

- Furthermore, there has been no previous study focusing on the role of e-UNNAT in enhancing public service delivery in the district, making this research a valuable contribution.

- Lastly, Kulgam district is home to a diverse population, including economically

disadvantaged groups such as tribals, which provides a rich socio-economic context to analyze the impact of e-UNNAT on various communities.

Data Collection: For this study, the researcher employed "both primary and secondary data collection methods to gather comprehensive information." Primary data was collected through fieldwork, involving structured questionnaires for common citizens in the three tehsils of Kulgam, D H Pora, and Devsar. For key respondents, interviews were conducted using an interview schedule. This allowed for in-depth insights into the subject matter. Secondary data was "gathered from a variety of sources, including reports, journals, books, official documents, parliamentary debates, and records from the district administration of Kulgam." Additionally, relevant information was sourced from newspapers, websites, and various academic resources such as theses and dissertations. Libraries at institutions like Lovely Professional University, Aligarh Muslim University, and Kashmir University were also visited for further data collection. Although the data analysis process is time-consuming, the study employed a combination of qualitative and quantitative research techniques to ensure a thorough and balanced analysis of the collected information.

Sample Size Distribution: Sample size "refers to the number of participants or observations included in a study." In the present study, simple random sampling technique for common citizenry has been used to reach to our respondents. Using the sample size formula of *Cochran* ($N=Z^2pq/e^2$), the sample size of the study came to 273 at "90% confidence level, 5% margin of error", 50% population proportion and 424483 population of district Kulgam as per census 2011 *(Cochran, 1963).* As per the rule, the sample size of 273 could not be decreased, but could be increased according to the convenience of the researcher. Accordingly, the sample size has been taken to 320 including 20 key respondents. Moreover, the sample was further divided into two broad categories including 300 as quantitative sample and 20 as qualitative sample. The qualitative sample was collected from 20 key respondents from three tehsils offices, three BDO offices, District Collectorate Kulgam, Media personnel and six selected Khidmat Centres. The sample distribution has been undertaken equally in all the three tehsils aimed at maintaining inclusivity in the research.

Table 1.1: Sample Size Distribution (Common Citizens)

Sample Size Distribution (Common Citizens)	
Tehsil	**Sample Size**
Kulgam	100
Devsar	100
D H Pora	100
Total	**300**

Table 1.2: Unit Level Sample Size Distribution

Unit Level Sample Distribution		
Tehsil	**Town/Village & Sample**	**Sample Size**
Kulgam	Kulgam Main (20)	100
	Chowalgam (20)	
	Sangus Kehrwat (15)	
	Okey (15)	
	Arreh (15)	
	Kader (15)	
D H Pora	D H Pora Main (25)	100
	Mandgour (25)	
	Khul Ahmadabad (25)	
	Watoo (25)	
Devsar	Devsar Main (40)	100
	Aakhran (30)	
	Lamad (30)	
Total		**300**

In order to get a possible generalization collected data from three tehsils that come under the district Kulgam namely Kulgam, D H Pora and Devsar on the basis of census 2011. The reason for selecting simple random sampling as a method for collecting data is that it helps to get the answers for the research questions like what, why and how from diverse populations. The

sample distribution was undertaken to maintain the habitation inclusivity (Rural and Urban) and gender (Male and Female). To assess the role of e-UNNAT in governance, from each tehsil 100 respondents were selected. In this context, a total of 320 respondents were selected including 300 common citizenries and 20 key respondents including people associated with Common Service Centres/Khidmat Centres, District Administration Kulgam (from each Tehsil). The s e l e c t e d respondents are 18 years, but inclusivity in terms of gender, ethnicity and habitation has been maintained.

Table 1.3: List of Key Respondents

S. No.	Key Respondents	Frequency
1	Deputy Commissioner Office, Kulgam (Additional Depyty Commissioner, District Panchayat Officer, and National Informatics Centre.	03
2	Tehsil Office, Kulgam	02
3	Block Office, Kulgam	02
4	Media Personnel	03
5	Khidmat Centres/CSCs (Operators)	10
Total		20

The research on the implementation, accessibility and challenges to the e-UNNAT initiative in District Kulgam draws insights from various key respondents involved in the program. These include officials from local administrative offices, media personnel, and representatives from Khidmat Centres/CSCs, each offering a unique perspective on the initiative's effectiveness and challenges. The sample size for key respondents from District Kulgam consists of 20 individuals selected from various government offices and service sectors. A significant portion of the sample, 10 respondents (50%), comes from six selected Khidmat Centres/Common Service Centres (CSCs). These centres are vital for providing public services, and their representation reflects their importance in the district's administrative network

(CSC/Khidmat Centers include Arreh, Chawalgam, Hedumand Gori, Okai, and Sangus). The Deputy Commissioner's Office, which includes roles like the Additional Deputy Commissioner, District Panchayat Officer, and National Informatics Centre, contributes 3 respondents (15%) to the sample. This highlights the focus on higher administrative functions within the district, although the sample size is relatively small given the importance of this office. Similarly, the Tehsil Office and Block Office of Kulgam each contribute 2 respondents (10%), suggesting that while these offices play a crucial role in local governance and welfare activities, they are represented with fewer respondents in this sample. Lastly, 3 media personnel (15%) are included, reflecting the role of media in disseminating information and shaping public perception within the district. Overall, the sample distribution gives a comprehensive view of the key administrative and service sectors in Kulgam, with a higher focus on public service centres and administrative offices.

Research Tools: To conduct the research and to draw the precise inferences for fulfilling the stated objectives of the study: it becomes important to adopt the appropriate research tool. For collecting the data from respondents a wide array of research tools has been used to collect the data. For data collection purpose, questionnaire was used for respondents (common citizens). In the questionnaire, close ended questions were asked to the respondents. However, the respondents were being at liberty to opined their suggestions. In case of key respondents, two separate structured interview schedules have been used to garner an insight into the state of e-UNNAT in service delivery in district Kulgam (one for Khidmat centers and other for District Administration of Kulgam and other stakeholders). These interview schedules with open ended questions have been administered to key respondents. All the subject matter collected from data sources has been presented under appropriate themes.

Data Analysis: The data from questionnaire and interview schedule has been interpreted and analyzed. The data collected from respondents has been analyzed using mean and Simple percentage statistics by MS Excel. The analyzed data has been presented under tables and graphs as it becomes easier for reader to garner an insight into the subject matter. While as, data from key respondents has been analyzed under appropriate themes. Moreover, the subject matter from secondary data sources has also been presented under different themes that will act as supportive

system to fulfill the objectives of the study and answer the pre-defined set of research questions.

Chapterization: Considering the magnitude of research, the present study has been presented under appropriate Chapterization subjected to coherency and synchronization. Accordingly, the thesis has been divided into five chapters as mentioned below:

Chapter I: "Introduction"

> This chapter introduces the study, providing the background on e-governance and its relevance in Jammu and Kashmir. It outlines the research objectives, scope, methodology, and the significance of the study. The chapter also gives an overview of the structure of the report, guiding the reader through the research journey.

Chapter II: "Literature Review"

> This chapter reviews existing literature on e-governance, focusing on its theoretical foundations, global and national practices, and specific challenges in Jammu and Kashmir. It explores previous studies on e-governance, identifies research gaps, and discusses relevant case studies to frame the current research within the existing body of knowledge.

Chapter III: "Conceptualizing e-Governance in Jammu and Kashmir"

> This chapter explores the concept of e-governance in the context of Jammu and Kashmir. It highlights the region's unique socio-political challenges, governmental policies, and initiatives like e-UNNAT. It also discusses infrastructure issues, technological advancements, and the roles of stakeholders in fostering effective e-governance in the region.

Chapter IV: "Impact Analysis of e-UNNAT in District Kulgam"

> This chapter examines the implementation and outcomes of the e-UNNAT program in Kulgam. It presents findings from data collection, analyzing the program's impact on local governance, service delivery, and socio-economic conditions. The chapter includes community feedback and assesses the successes and challenges faced during the

program's execution.

Chapter V: Conclusion and Suggestions

This concluding chapter summarizes the study's key findings and provides recommendations for improving e-governance in Jammu and Kashmir. It offers suggestions for enhancing the e-UNNAT program's effectiveness, addressing challenges, and ensuring broader citizen engagement, thus contributing to better governance and public service delivery in the region.

1.7 Scope of the Study

The present study, titled "The Changing Trends of e-Governance Under e-UNNAT: A Case Study of District Kulgam," is an explorative and analytical investigation aimed at assessing the performance of the e-UNNAT platform in delivering public services within District Kulgam, Jammu and Kashmir. As a community-oriented study, it holds significant implications for both the general public and governance institutions. The scope of the study is wide, focusing on several key aspects.

- **Examination of Administrative System:** The study provides an in-depth exploration of the administrative framework in Kulgam district. It identifies the key governmental processes and structures involved in service delivery, emphasizing how e-governance initiatives, such as e-UNNAT, are integrated into local administrative functions.

- **Exploration of Online Portals and Applications:** The research investigates the various digital platforms and online applications that facilitate public service delivery in Kulgam. This includes an assessment of their accessibility, usability, and effectiveness in reaching the target population.

- **Analysis of e-UNNAT's Emergence and Role:** The study critically analyzes the rise and development of e-UNNAT as a digital governance tool. It highlights its role in streamlining public service delivery and its impact on enhancing service efficiency within the district.

- ✚ **Assessment of Factors Affecting Service Delivery:** The study identifies and evaluates key factors that influence the effectiveness of public service delivery through e-UNNAT. These include technological infrastructure, administrative support, user awareness, and the digital divide, which could affect the smooth functioning of services.
- ✚ **Investigation of Challenges Faced by Citizens:** The research also focuses on the challenges faced by citizens in accessing public services through e-UNNAT. Issues such as technical difficulties, lack of awareness, and accessibility barriers are examined to provide insights into areas for potential improvements in the system.

1.8 Importance of the Study

The importance of this study lies in its potential to enhance the understanding of e-governance through the e-UNNAT platform in District Kulgam. By assessing the effectiveness of digital public service delivery, the study offers valuable insights into the challenges and opportunities faced by citizens and government institutions. It contributes to improving service efficiency and accessibility, particularly for vulnerable populations. Additionally, the findings can help policymakers identify areas for improvement in the implementation of e-governance initiatives, fostering better governance, accountability, and transparency in "public service delivery, ultimately leading to more inclusive development in the region."

- The study holds greater importance and is spacious as it would be helpful to craft the awareness among the common people with respect to the utility and benefits of using e-UNNAT in District Kulgam.

- The study may act as a guide for the governance institutions, as it will be helpful to draw attention to the problems that thwart the effective implementation of e-UNNAT.

- The study will act as a catalyst to strengthen the community participation in Governance and will guide how the public participation will affect the public service delivery mechanism.

- The study also defined the ways, how e-UNNAT will be made people friendly and how community engagement will be strengthened in Governance.

- The study also explored how transparency and responsive governance will be created that will provide the cost-effective and real time public service delivery.

- Lastly, the study will act as a reference point for upcoming researchers and will cement their theoretical base in the concerned subject matter.

1.9 Key Concepts and Definitions

This section provides clear and concise definitions of key concepts essential for understanding governance and public service delivery. It outlines fundamental terms such as governance, good governance, accountability, transparency, and e-governance, highlighting their significance in modern administrative systems. By establishing a shared vocabulary, this section lays the groundwork for deeper analysis of how these concepts influence effective decision-making, institutional performance, and citizen engagement in various governance contexts.

Accountability in Governance: Accountability in governance refers to the oversight mechanisms ensuring that public officials fulfill their responsibilities and that political power is exercised with appropriate checks and balances. It comprises three key dimensions: (i) Answerability — the obligation of officials to explain and justify their decisions and actions transparently to the public; (ii) Enforceability — the capacity of institutions to impose sanctions on officials who fail in their duties, upholding the rule of law; and (3) Clear Delimitation of Responsibility — well-defined roles and performance standards for officials, enabling transparent and objective assessment of their conduct *(UNESCO).*

Digital Divide: "The digital divide refers to the gap between individuals and communities who have access to digital technologies, such as computers and the internet, and those who do not. It encompasses disparities in access to digital hardware, software, and skills, influencing social and information inequalities within society *(Van, J. A., 2017).*"

e-Governance: e-Governance is the strategic use of information and communication technologies (ICTs) to transform and improve the processes of governance through

enhanced service delivery, transparency, accountability, and citizen participation. Unlike e-government, which focuses primarily on the digital provision of public services, e-governance encompasses broader democratic engagement, including Government-to-Citizen (G2C), Government-to-Business (G2B), and Government-to-Government (G2G) interactions, thereby fostering inclusive and participatory governance *(Srinivas, H. (n.d.).)*.

Good Governance: Good governance is the practice of governing that is participatory, consensus-oriented, accountable, transparent, responsive, effective and efficient, equitable, inclusive, and firmly grounded in the rule of law. It ensures the minimization of corruption, protection of minority rights, inclusion of vulnerable groups in decision-making, and responsiveness to both current and future societal needs *(UNESCAP)*.

Governance: Governance refers to the processes of decision-making and the mechanisms through which decisions are implemented or not implemented. It encompasses both formal and informal actors and structures involved in formulating, executing, and evaluating decisions across various contexts, including corporate, international, national, and local levels. Governance analysis focuses on the interactions between institutions, procedures, and stakeholders that influence outcomes in public and private domains *(UNESCAP)*.

Inclusive Governance: "Inclusive governance refers to a system of governing in which all segments of society—regardless of gender, ethnicity, class, or other social divisions—are meaningfully represented, actively engaged, and equitably served in decision-making processes and public service delivery." It emphasizes transparency, accountability, and responsiveness to ensure that institutions address the diverse needs and rights of all communities *(Berghof Foundation. (n.d.).)*.

Public Service Delivery: Public service delivery is the process through which governments provide essential services to citizens, involving the coordinated efforts of political, administrative, and social institutions. Effective delivery depends not only on technical solutions but also on accountable governance, active citizen engagement, and trust in public institutions. It requires context-specific, integrated approaches that address

local challenges and institutional obstacles to ensure accessible, quality, and sustainable services, especially in fragile or complex environments *(World Bank, 2015)*.

Rule of Law: The rule of law is the principle that governance is conducted through fair, transparent, and consistently enforced legal frameworks. It ensures the protection of human rights, especially for minorities, and requires impartial enforcement by an independent judiciary and an unbiased, incorruptible law enforcement system *(UNESCAP)*.

SMART Governance: SMART Governance refers to the use of technology to enhance planning, decision-making, and democratic processes within cities. It aims to transform public service delivery by integrating e-government, promoting efficiency, enabling mobile working, and fostering continuous innovation to achieve effective governance and improved community leadership *(Power International Holding, 2017)*.

Transparency: Transparency refers to the openness and clarity in decision-making and enforcement processes, ensuring they follow established rules and regulations. It involves making relevant information freely accessible and easily understandable to all stakeholders affected by those decisions, enabling informed participation and accountability *(UNESCAP)*.

1.10 Conclusion

Chapter 1 has laid the groundwork for understanding the transformative impact of "Information and Communication Technology (ICT)" in governance, particularly through the lens of e-governance initiatives such as e-UNNAT in Jammu and Kashmir's District Kulgam. The chapter began with a reflection on the essence of governance and its evolving dynamics in the digital age, echoing the words of *S. Radhakrishnan* on the importance of service over power in public administration. It delved into the theoretical framework underpinning e-governance, emphasizing its role in enhancing transparency, accountability, and responsiveness in governance operations. The rationale for this study was rooted in the dual contexts of India's progressive steps in e-governance and the unique challenges faced by regions like Jammu and

Kashmir, marked by periodic internet shutdowns. Despite these challenges, the introduction of initiatives like e-UNNAT signifies a proactive approach towards leveraging IT for efficient service delivery. The chapter also outlined the research objectives aimed at analyzing the evolution, role, challenges, and potential improvements of e-UNNAT in public service delivery within District Kulgam.

Theoretical frameworks, including the UTAUT model, were examined to analyze user acceptance of technology within e-governance, emphasizing the critical role of connectivity, knowledge, database management, and financial resources in effective implementation. Key findings suggest that the advent of Information Technology has profoundly transformed socio-economic interactions worldwide, reshaping governance and public service delivery. IT has brought an immense opportunity to the administrative systems across the globe for the effective and transparent functioning. The adoption of digital infrastructure into the working of institutions is known as e-governance. "E-governance refers to the use of Information Technology to deliver government services, facilitate information exchange, enable transactions, and integrate pre-existing services and information platforms." The dawn of ICT enabled governance was aimed to focus on the bettering livelihoods and brining transparency in governance. Presently the governments at both levels centre and state are making the bold policy initiatives to bring the services at the door steps of its citizens by using IT. It is believed that use of IT is going to augment the efficiency in administration and service delivery. However, for effective implementation of SMART governance model certain issues like; infrastructural lacunas, policy issues, digital divide etc. should be resolved in the stipulated time frame.

CHAPTER 2
LITERATURE REVIEW

2.1 Introduction

The advent of "Information and Communication Technology (ICT)" has brought about a profound transformation in global socio-economic dynamics, catalyzing the rise of ICT-enabled governance, commonly known as e-governance. This paradigm shift has not only reshaped how governments interact with their citizens but has also redefined the efficiency and transparency standards expected from public service delivery systems worldwide. India, a significant player in the global IT landscape, has been actively embracing e-governance initiatives since the 1990s, aiming to harness technological advancements to bridge administrative gaps and enhance citizen-centric services. However, the transition to e-governance has been marked by multifaceted challenges that hinder its seamless adoption and effective implementation. These challenges encompass a spectrum of issues ranging from technological infrastructure limitations to socio-economic disparities and bureaucratic hurdles. Understanding the historical evolution and developmental trajectory of e-governance across the globe, within India, and specifically in the state of Jammu and Kashmir is imperative to grasp the complexities and nuances associated with its implementation.

In the above context, this chapter undertakes a comprehensive literature review drawing from a wide array of secondary data sources, including scholarly journals, academic papers, and authoritative books. It systematically synthesizes existing academic insights and empirical findings to address the identified research gaps and offers a structured analysis under different themes as outlined below. By critically examining these themes, this literature review aims to provide a comprehensive understanding of the global, national, and regional dimensions of e-governance, elucidating the challenges, opportunities, and theoretical underpinnings that influence its implementation and impact. The insights gleaned from this review will serve as a foundation for the subsequent empirical research and policy recommendations, aimed at advancing effective e-governance strategies tailored to diverse socio-economic contexts.

2.2 Global Trends in e-Governance

Anderson (1999) introduced the concept of "PUPREB (Public Sector Process Rebuilding), which focuses on addressing the needs of public officials, citizens, and governance institutions." In his work, he critiques the traditional approach of Business Process Re-engineering (BPR), arguing that it overlooks important cultural, contextual, and organizational factors such as politics, power dynamics, and informal group structures. He stated that Information and Communication Technology adoption cannot result in better services without an appropriate road and dedication. In this context, the three components of PUPREB including political will, a balance between individual and collective level, and customer orientation are necessary to reduce risks and maximise rewards under the shadow of ICT enabled governance.

Keohane and Nye (2000) describe governance as "the framework of formal and informal institutions and processes that direct and constrain the collective actions of a group." The concept emphasizes that the role of government extends beyond traditional state functions; it involves collaboration with private businesses, NGOs, and other stakeholders to effectively manage societal affairs. This collaborative approach, known as governance, recognizes that various actors contribute to decision-making and policy implementation, transcending the public sector's boundaries. In this context, e-Government plays a pivotal role "not only in public administration but also in regulating and enforcing rules within the private sector." This inclusive governance framework underscores the importance of partnerships and collective action in achieving societal goals and fostering transparency and accountability across all sectors of society, ensuring holistic development and effective service delivery.

Heeks (2001) extensively analyzed the contribution of "Information and Communication Technology (ICT)"in promoting the principles of good governance. His research identified three primary contributions of e-governance: enhancing the efficiency and transparency of governance processes (e-governance), fostering direct engagement between citizens and government through e-services (e-citizens), and promoting broader societal interactions (e-society). He emphasized the critical importance of these contributions in promoting democratic participation, improving service delivery, and strengthening governance structures globally. Moreover, *Heeks* highlighted the necessity for robust initiatives to solidify e-governance

practices in developing countries. He identified six core areas essential for successful implementation: establishing robust "Data Systems Infrastructure, ensuring supportive Legal Infrastructure, developing adequate Institutional Infrastructure, enhancing Human Infrastructure" through capacity building, leveraging advanced Technological Infrastructure, and fostering Leadership and Strategic Thinking. These foundational elements are crucial for overcoming barriers and maximizing the benefits of ICT in governance, thereby facilitating inclusive development and effective public service delivery.

Gronlund and Horan (2004) delved into the intricacies of e-governance in their study titled 'Introducing E-Gov: History, Definitions, and Issues'. Their research provided an in-depth exploration of the evolution and current state of e-governance. They traced the historical roots of e-governance to the 1990s, highlighting its emergence alongside advancements in computing within governmental institutions. The study identified three primary goals of "Information and Communication Technology (ICT)"in governance: enhancing the efficiency of government operations, improving service delivery to citizens, and enhancing democratic processes. These objectives underscored the "transformative potential of e-governance in streamlining administrative processes", making government services more accessible and responsive, and fostering greater citizen engagement in decision-making. *Gronlund and Horan's* work emphasized the critical role of ICT in modernizing governance structures worldwide, promoting transparency, efficiency, and citizen-centric service delivery. Their findings continue to inform strategies for leveraging technology to enhance governance effectiveness and democratic participation globally.

Chen et al. (2006) describe e-governance as a cost-efficient approach that enhances communication between governments and citizens by offering access to "information and services via the internet". E-government, a key component of e-governance, strengthens the interaction between private individuals and public sectors by enabling more effective, economical, and efficient delivery of services, information, and knowledge. They have laid down them emphasises upon value of cost-benefit analysis while also grouping diverse elements between the people and the government in a coordinated manner to achieve the goals of both.

According to *Fang (2016)*, "e-governance is a strategic framework that enables governments to utilize advanced information and communication technologies, especially web-based applications, to improve service delivery." This approach aims to increase the accessibility of government services and information for citizens and businesses, facilitating their participation in democratic processes. By implementing e-governance, governments strive to deliver higher-quality, more efficient services, thereby improving interactions between citizens and government institutions. The integration of modern ICT tools "not only boosts operational efficiency but also increases transparency and accountability" in public administration. Citizens benefit from easier access to services, reduced bureaucratic hurdles, and greater opportunities to engage in decision-making. Fang underscores that this approach aligns with worldwide digital transformation trends, allowing governments to address the rising demands of a digitally interconnected society in the 21st century. He emphasizes the transformative power of e-governance in driving innovation, efficiency, and responsiveness in public service delivery, ultimately enhancing governance effectiveness and increasing citizen satisfaction.

> **Research Gap:** The existing literature extensively discusses the theoretical and operational aspects of e-governance, emphasizing its role in enhancing transparency, efficiency, and citizen engagement (Anderson, 1999; Heeks, 2001; Fang, 2016). However, most studies focus on urban or developed regions, with limited empirical research on rural and conflict-affected areas like Kulgam District in Jammu and Kashmir. While scholars highlight the importance of ICT infrastructure, political will, and institutional frameworks (Gronlund & Horan, 2004; Chen et al., 2006), there is a lack of localized studies examining how these factors interact in regions with unique socio-political challenges, digital divides, and low e-literacy. Additionally, despite the emphasis on collaborative governance (Keohane & Nye, 2000), minimal research explores the effectiveness of e-UNNAT (a digital governance initiative) in fostering inclusive participation and service delivery in such contexts. This study aims to bridge these gaps by analyzing e-UNNAT's implementation in Kulgam, assessing barriers like infrastructure deficits, trust deficits, and policy-practice disparities, while proposing context-specific strategies for optimizing e-governance in marginalized regions.

2.3 e-Governance in Relation to India

Gupta (1966) in his book, "E-Governance Projects" has undertaken the diagnostic study of e-governance in India. In his work, author analyzed the interdependence of various factors including ICT, people, process and systems in a governance framework. The study primarily employed a set of participatory and management tools and techniques to analyze the conceptual outline of e-governance. Moreover, the focus was laid upon the mainstay aspects of e-governance like: "Business Process Reengineering (BPR) and strategy, change management and citizen centric e-governance design". In the concluding observations, it was inferred that there is need to make institutional changes in India to make e-governance a reality. In the last resort, these institutional changes will act as a catalyst to make e-governance a thriving initiative.

The modern era has witnessed the digital influx that has revolutionized every facet of social existence. Moreover, there are certain inherent threats that have affected the routine functioning of ICT in governance and other institutions. In this context, *Mishra (2002)* has conceptualized the framework of cybercrime. Author defines cybercrime as any crime done with the help of computers or technology that primarily affects the normal functioning of computer and ICT infrastructure. The statistics have revealed that there is estimated 600 million internet users connected by internet and email by the year 2001. With the boom and increase in e-commerce and e-governance, the cybercrime has become a greatest threat. Therefore, the timely interventions including policy framework must be a priority.

According to *Sharma & Gupta (2003)*, the e-government movement is advancing quickly as countries make use of new electronic communication tools like the Internet. Yet, the authors have noted that when projects are disjointed and poorly integrated by a broad plan, the progress of e-government transformation stalls. Although the countries are advancing towards e-government adoption, there isn't a clear framework to direct the implementation and the course of action. The authors have provided recommendations to ensure the deployment of e-government is successful in their closing observations. They recommended that an organised plan be created for the efficient adoption of e-governance.

Pankaj (2004) describes e-Governance as a profound transformation in governance processes driven by the rapid and continuous integration of advanced digital technologies into society. This evolution opens up significant opportunities to "enhance the quality of services provided to citizens". The internet, in particular, has transformed governance by increasing transparency, efficiency, and accessibility in public administration. The adoption of "Information and Communication Technology (ICT)" encourages a shift from traditional bureaucratic systems to a more adaptable e-Government framework, emphasizing collaboration, external partnerships, and improved customer service. Despite the universal benefits, countries worldwide adopt diverse approaches to managing e-technology within their governance frameworks. Some prioritize building robust digital infrastructures, while others focus on regulatory measures to ensure data security and privacy. These varied strategies reflect each nation's unique socio-economic context and governance priorities. Nonetheless, the overarching goal remains consistent: leveraging digital innovations to modernize governance and better serve the needs of citizens in an increasingly interconnected world.

Saxena (2005) has undertaken a study titled "*Towards excellence in e-governance*". According to *Saxena*, e-Governance efforts are widespread in most of the nations because they offer better citizen-centric government services and minimal operational costs. Yet, empirical research has shown that the majority of e-governance programmes have failed to meet their intended goals. Without considering any dividend, the majority of nations have concentrated on these e-governance activities. The inability of e-governance to achieve its goals is attributed by the author to a "techno centric rather than a governance-centric approach." In the concluding remarks, the author highlights the significance of governance-centric excellence in e-governance. Additionally, the focus should be on "effectiveness-driven imitation rather than solely efficiency-driven approaches".

Shah (2007) conducted a study titled "e-Governance in India: Dream or Reality" and observed that India is rapidly progressing toward the adoption of e-governance. He identifies four stages for implementing e-governance: Information or Cataloguing, Transaction, Vertical Integration, and Horizontal Integration. While India has successfully reached the first two stages, it is currently navigating the third, which presents significant challenges. The author highlights

several issues, such as geographical, social, and economic barriers, that still need to be addressed. Shah emphasizes the importance of creating a database of citizens, as well as implementing biometrics and smart cards, to "ensure the effective and secure delivery of e-governance services".

Kalsi et al. (2009) in their study have discovered that the use of ICT has altered the socio-economic interactions across the globe. New chances for global growth and development have been ushered in by ICT. The state and federal governments have begun to take steps to develop new facets of social and economic advancement. Nonetheless, the authors have emphasised the necessity for a comprehensive strategy that will address all the key factors contributing to India's successful governance. They emphasised the necessity of an e-governance system for a nation like India. Yet, the Indian government has introduced a number of measures relating to the use of ICT in the nation's administrative structure. Yet, the majority of these projects are dormant and effectively meeting a small number of requirements; as a result, a comprehensive approach is required to move forward with them and convert them so that they become self-sustaining over time. Nonetheless, it has been demonstrated from empirical studies that people are prepared to pay more for the services provided by e-governance efforts. Yet, there is a digital divide between rural and urban populations.

Barua (2012) conducted a pioneering study in West Bengal to "explore the factors affecting the adoption of e-Government within Indian governance institutions". This research marked the first effort to evaluate e-Governance adoption in India, with a specific focus on employees' interest in utilizing the online pension system in West Bengal. The study involved 60 government personnel actively working on the system, and the model was tested and validated through regression analyses. The findings revealed that critical factors such as "Performance Expectancy, Effort Expectancy, Facilitating Conditions, Social Influence, Trust in Data, and Trust in the System "were all highly significant in shaping employees' intention to adopt e-Government in India. *Barua* concluded that, with certain adjustments, the same framework could be extended to pension management systems in other states across the country.

Iyer and Srivastava (2014) formulated a theoretical model to pinpoint the key factors affecting the public's intention to adopt e-Government services. Their study, grounded in an extensive

review of existing literature, identified six critical factors: computer anxiety, computer self-efficacy, responsiveness, familiarity, website design, and security/privacy. The researchers surveyed 148 e-government service users in Maharashtra, India, using convenience sampling. Through multiple regression analysis, they determined that computer anxiety, computer self-efficacy, familiarity, and website design were significant predictors of the widespread adoption of e-Government services. However, security/privacy and responsiveness were identified as factors that received fewer positive responses, suggesting they were less influential in encouraging the "adoption of e-Government services".

Malik, P. et al. (2014) have conducted the study titled "Challenges and Future Prospects for e-Governance in India.". In their view, Information technology has given the government's services more momentum in the current environment. The study emphasizes the "role and potential of information and communication technologies (ICTs) in supporting good governance initiatives in developing nations". ICTs have a major role to play in assisting in the accomplishment of good governance objectives. Enhancing government procedures first, followed by fostering connections among citizens and third, fostering external relationships. Information technology has given the government's services more momentum in the current environment. The research also covers the "future prospects of e-government in India, including the main proposals and targets of the Twelfth Five Year Plan (2012–17)", as well as the existing "state of e-government in India (achievements of the Eleventh Five Year Plan)". The ICT enabled governance has greater potential to transform the G2G, G2C and G2B interactions subjected to overcoming the persistent barriers.

In "E-Governance: Emerging Dimensions in India", *Tyagi (2014)* examines the importance of "Information and Communication Technology (ICT)" in government functions. He introduces the concept of "SMART government, representing Simple, Moral, Accountable, Responsive, and Transparent governance", emphasizing the key attributes that an effective and efficient government should achieve through the application of ICT. For successful implementation of '*Digital Governance*' model in India, there needs development of robust technical infrastructure, institutional capability, and center-state cooperation. In the view of *Tyagi*, to

make the e-governance a reality and inclusive in nature, focus to be laid upon the gaps vital for bringing efficiency in service delivery mechanism.

Khan and Kumari (2016) in their research titled "Implementation of e-Governance: Issues and Challenges" have outlined the challenges associated with e-governance. According to the researchers, the development of ICT has changed how governments operate and offer services to their constituents. Most developed nations have fully embraced e-Government, utilizing "Information and Communication Technology (ICT)"to deliver government services, enable information exchange, and support communication transactions. ICT also serves a crucial role in integrating standalone systems and services across government levels, including "government-to-citizen (G2C), government-to-business (G2B), government-to-government (G2G), and internal back-office operations", thereby improving overall efficiency within the governmental structure. This process is known as electronic governance, or e-Governance. The integration mechanism under the realm of e-governance has transformed the interactions among stakeholders and delivery of public services at large.

> **Research Gap:** While existing literature extensively examines e-governance in India, highlighting its evolution, challenges, and benefits (Gupta, 1966; Saxena, 2005; Shah, 2007), there remains a significant gap in empirical research on localized e-governance initiatives like e-UNNAT in conflict-prone and rural regions such as Kulgam, Jammu and Kashmir. Studies emphasize the importance of ICT infrastructure, citizen-centric approaches, and policy frameworks (Tyagi, 2014; Kalsi et al., 2009), yet few explore how these factors function in areas with low digital literacy, security concerns, and infrastructural deficits. Additionally, while scholars discuss cybersecurity risks (Mishra, 2002) and adoption barriers (Iyer & Srivastava, 2014; Barua, 2012), there is limited focus on how trust deficits, political instability, and socio-economic disparities impact e-governance in such regions. Furthermore, despite recognizing horizontal and vertical integration challenges (Shah, 2007), no study specifically evaluates e-UNNAT's effectiveness in bridging governance gaps in Jammu and Kashmir. This research aims to fill these gaps by assessing e-UNNAT's implementation in Kulgam, identifying region-specific barriers, and proposing strategies for inclusive e-governance models.

2.4 e-Governance in Context to Jammu and Kashmir

Qadri, M. N. (2014) has analyzed the aspects of transparency and efficiency under e-governance in the University of Kashmir. IT has found utility in all the domains of social life including education, employment, healthcare and others. Considering the case of University of Kashmir, it also integrated the IT in its governance including administration and educational perspectives. The university has "established a full-fledged Directorate of Information Technology and Support System (IT & SS)". The management has made all the efforts to modernize its IT infrastructure for the establishment of effective and transparent mechanism in context to admissions, student registration, examination and administration. To ensure the real time and quality based solution of international standards, the services of Multi-National Companies (MNCs) through consultancy and collaborative mechanism are being hired. At large, it helped the university to achieve the core competencies in terms of delivering the quality services.

Naqshbandi and Fazili (2018) carried out a review-based research titled "Impact Assessment of Common Service Centres (Tele-centres) on Citizen Services: Findings from Jammu and Kashmir". The idea of tele-centres, which originated from the 1994 Buenos Aires Action Plan, denotes physical facilities utilizing "Information and Communication Technology (ICT)" to deliver services aimed at social and personal development. While tele-centres have been successful in developed countries, they have faced challenges in developing nations such as Bangladesh, Pakistan, and South Africa, primarily due to poor connectivity, low literacy rates, and the digital divide. In India, "Common Service Centres (CSCs)" were introduced under a public-private partnership framework, featuring a three-tier structure: "Village Level Entrepreneur (VLE)", "Service Centre Agency (SCA)", and "State Development Agency (SDA)". In Jammu and Kashmir, these centres are known as Khidmat Centres. Of the 1,109 planned centres, approximately 977 were set up across the state. These centres have significantly contributed to financial management and inclusion, enabling "Business-to-Business (B2B), Business-to-Government (B2G), Business-to-Citizen (B2C), and Government-to-Citizen (G2C)" transactions.

Mehraj, T. and Kaur, R. (2018) in their study have offered insights into the e-governance mechanism of Jammu and Kashmir. IT has the great potential to "improve the efficiency and

effectiveness of service delivery". The technological convergence due to digitalization, compression technologies and standards development supports the provision of cost-effective service delivery including education and healthcare. With the help of ICT, the pursuit for decentralized and people centered governance could be fostered. The fostering should be led by emergence of competing technologies, larger user base and appropriate institutional mechanism. In this milieu, the government of Jammu and Kashmir identified new approach to improve the service delivery, reduce the costs, minimize the delays and simplify the procedures.

Mehraj & Kaur (2018) in their work have explored some digital initiatives in the realm of e-Governance in Jammu and Kashmir. Moreover, the digital influx in Jammu and Kashmir is gaining momentum more importantly in governance. The prominent digital initiatives in J&K include digitalization of land records, Jammu and Kashmir e-Governance Agency, State Data Centre, e-Public Distribution System and others. Additionally, bold measures are being undertaken to cement the e-Governance mechanism, but there exists a timely and reformative intervention in terms of pace, connectivity and skilled manpower.

Maram and Koundal (2013) conducted a review-based study titled E-Governance in Jammu and Kashmir. The researchers highlight several initiatives launched by the government of India to promote the use of Information Technology (IT) in governance. One of the key steps was the implementation of the National E-Governance Action Plan for 2003–2007. The Jammu and Kashmir (J&K) government established the Jammu and Kashmir E-Government Agency (JaKeGA) to oversee e-governance projects. JaKeGA, which is governed by a board with the state's chief secretary as the leader, was registered under the "Societies Registration Act on January 14, 2009". This agency was designed to offer the necessary flexibility for implementing IT-related projects across the state. The e-governance vision for Jammu and Kashmir emphasizes providing services directly to citizens at cost-effective rates by leveraging "Information and Communication Technology (ICT)" to achieve "Simple, Moral, Accountable, Responsive, and Transparent (SMART) governance". Primary sectors targeted for service delivery include education, healthcare, and financial services.

Zargar, W. A. et al. (2017) in their study have analyzed the "challenges of e-governance in Jammu and Kashmir". The use of digital infrastructure has found utility in education, healthcare

and other aspects of social life. The digital influx has profound impact on people's lives as government of Jammu and Kashmir come up with several initiatives that facilitate the access to public services. Despite the advancements in e-governance, several challenges persist in Jammu and Kashmir regarding accessibility and other aspects. Key challenges include a high level of illiteracy, the absence of user-friendly interfaces, unreliable power supply in rural areas, limited broadband penetration, and a general lack of awareness about e-governance among the population. These factors hinder the effective implementation and widespread adoption of e-governance services in the region. From the back end, the challenges pertaining to departmental integration, limited digital exposure and expertise among the departments. Therefore, there is need to re-engineer the e-governance in context to public needs.

Javid, A. and Lone, R. A. (2019) have termed e-governance a generous marvel as it brought a revolution in all the spheres of governance. In the modern context, e-governance has gained prominence as it is integral for achieving the rapid and inclusive economic growth. E-governance is recognized as an efficient means of delivering services directly to citizens' doorsteps in real-time and at a cost-effective rate. In the context of Jammu and Kashmir, e-governance holds significant potential and is seen as a comprehensive approach to development. It plays a pivotal role in driving economic growth, with support from both national and international agencies to facilitate its implementation and expansion. However, there is need to develop the e-governance services as per people's needs and the services should be citizen friendly.

Javaid and Lone (2019) in their study have explored the usefulness of e-Transactions in selected e-Governance services in Jammu and Kashmir. The review has suggested that a lot of people across institutions and states have the potential to use e-Government effectively and holistically over time. There is significant support of international institutions for implementing the e-governance mechanism across globe. E-government must be user-friendly for citizens. In context to Jammu and Kashmir, "e-Government is to be able to offer an enhanced portfolio of public services to residents in a timely and cost-effective manner".

Dar, Y. N. and Mehta, S. (2020) in their study have presented insights into 'good governance' and 'e-governance' of Jammu and Kashmir. To transform the governance structure of Jammu

and Kashmir, the government has undertaken state wide e-governance initiatives for bringing transparency, accountability and effectiveness in administration. Although, the state lies behind other states in terms of development, but it undertook various policy interventions to transform the governance. The target of the e-governance is not only the public, but the administration as well. E-governance is the hallmark to keep tab on responsiveness, transparency and accountability of administrators. It helps to make governance more responsive towards the public needs and aspirations.

Dar, S. A. and Sakthivel, P. (2021) have conducted their study titled 'M-governance: A Tool for Tackling the Corruption in Jammu and Kashmir'. In the words of researchers, M-governance is the "sub-domain e-governance that enables the citizens to access services using their mobile phone". M-governance has the tendency to become an instrument to battle corruption in Jammu and Kashmir. M-governance might be characterized as enemy to corruption as it helps to democratize and gain rational use of governance. It can be used as a tool to raise the societal issues in real time and accessing the information in 24/7 mode. At the present moment, people regularly use mobile for financial transactions, tracking of services, access to documents using *Digi-locker* and others. In this context, the government of Jammu and Kashmir needs to endeavor efforts for achieving maximum utilization of M-governance.

Dar, S. A. and Sakthivel, P. (2021) have conducted a study titled 'Public Service Delivery Through M-Governance: Jammu and Kashmir Government Initiatives'. United Nations has taken the initiative to improve users' accessibility to public services by implementing mobile governance (M-governance), a subdomain of electronic governance (E-governance). India is not an exception to the global trend of developed and developing countries adopting mobile governance. India being the largest democratic country in the world, announced mobile governance in its official gazette in February 2012. The entire globe has been altered by m-Governance. It denotes a complement to E governance rather than its replacement. In context to Jammu and Kashmir, diverse set of mobile applications have been put in place for effective service delivery. The key developments in the line include JK Bank mpay, Kashmir Train Timing, Kashmir Railway Info, Grosfills and others. The key reason for the development of M-governance in J&K is crippling tourism, climatic conditions, law and order.

Dar, S. A. and Lone, N. A. (2022) have conducted a study titled 'E-Panchayat in Kashmir: The Smart Way Forward'. According to the researchers, e-panchayat has tremendous potential in rural India to transform and modernize the Panchayati Raj System. The mechanism will be helpful for elected representatives to communicate in real time mode with higher authority with regard to public service delivery and challenges thereby. In India, e-Panchayat has succeeded in promoting transparency in decentralized planning. It helps in government-public communication flow and acts as an effective tool to empower citizens. It also intends to mechanize the workplace of more than 2.5 lakh panchayat individuals by helping in planning execution, social evaluation and permit issuance. Although implementing e-Panchayat is a novel concept in India and Jammu and Kashmir, but there are many challenges associated with it. The key challenges that have greater potentiality to limit the scope of e-Panchayat includes regular electricity, lack of computer skills among rural people and digital divide at large.

Dar (2022) in his work has presented an exploration into the "e-Governance influx in Higher Education of Jammu and Kashmir". There is high level of commitment in the higher education for the adoption of e-Governance approach. However, there are concern pertaining to security issues, privacy, digital literacy and other. Adoption of e-Governance in higher education will provide convenient, effective and transparent access to information in 24*7 modes. Digitalization of public services helps to achieve eight key goals: "participation, transparency, effectiveness, efficiency, responsiveness, accountability, equity and inclusivity".

Ahmad, S. and Zehra, K. (2022) in their study have analyzed the role of *Khidmat Centers* in delivering the e-services to public in Jammu and Kashmir. According to them e-governance is an "endeavor to transfer the government works and improve the service delivery mechanism through technological innovations". The key constructs of good governance under the realm of e-governance is rule of law, transparency, accountability, public management and efficiency. Under the shadow of ICT, the government aims to connect the people from rural and urban habitations through e-service delivery. In the state of Jammu and Kashmir, *Khidmat Centres* lie at the centre of providing e-services to public. The role of these centers is essential to connect the people with government for the holistic and inclusive development. These centres "act as primary front for delivery of services including the banking related services".

Negi, B. S. (2022) conducted a study titled District Good Governance Index: Initiatives of Himachal Pradesh and Jammu and Kashmir. The study focuses on the Good Governance Index (GGI), which serves as a systematic and practical framework for assessing the governance levels in all States and Union Territories. The GGI facilitates the ranking of States and Districts and provides comparative data. The primary objective of the GGI is to offer valuable insights to State and Central Ministries/Departments, helping them develop and implement effective strategies to improve citizens' living standards. The assessment results are not intended to be used as tools for pressuring or rewarding State Governments. It is a framework document that tracks performance across seven sectors using 58 indicators and 116 data points. Before adopting the criteria, each of the Districts through a rigorous and in-depth process of data collecting, screening, and validation. The adoption of the same at the national level unveils the status of governance in various states & UTs, just as the Good Governance Index at the international level informs nations where they stand and where they need to improve or invest their resources.

According to a report by *Economic Times (January-17-2023)*, Jammu and Kashmir has undergone a significant overhaul in its governance mechanisms, emerging as the first union territory to fully transition into e-Governance. This transformation has resulted in approximately 400 public services being digitized and made accessible through online platforms. Notably, these services are equipped with quality assurance measures and mechanisms to solicit feedback from users. They are conveniently accessible through platforms like Digi-locker and e-UNNAT, enhancing user convenience and accessibility. The shift to e-Governance marks a pivotal step towards modernizing administrative processes in Jammu and Kashmir, aiming to improve service delivery efficiency and transparency. By leveraging digital platforms, the union territory has aimed to simplify "interactions between citizens and government agencies", ensuring faster and more responsive service delivery. This initiative underscores the commitment to harnessing technology to enhance governance effectiveness and citizen satisfaction, setting a precedent for other regions to emulate in embracing digital transformation for public service administration.

> **Research Gap:** While existing studies highlight the progress of e-governance in Jammu
> and Kashmir (J&K), including initiatives like Khidmat Centres, JaKeGA, and m-

governance (Naqshbandi & Fazili, 2018; Dar & Sakthivel, 2021), there remains a critical gap in empirical research assessing the effectiveness of e-UNNAT in addressing region-specific governance challenges. Prior research emphasizes infrastructure limitations, digital illiteracy, and connectivity issues (Zargar et al., 2017), yet fails to examine how e-UNNAT navigates these barriers in conflict-affected districts like Kulgam, where trust deficits and security concerns further complicate digital adoption. Additionally, while studies acknowledge citizen-centric service delivery (Mehraj & Kaur, 2018), none evaluate whether e-UNNAT aligns with local administrative workflows or socio-cultural preferences of rural populations. Furthermore, despite the push for m-governance and e-Panchayats (Dar & Lone, 2022), there is no analysis of how e-UNNAT integrates with these systems to ensure last-mile governance efficiency. This study fills these gaps by assessing e-UNNAT's operational efficacy in Kulgam, identifying bottlenecks in policy implementation, public awareness, and institutional coordination, while proposing context-specific strategies in context to e-governance.

2.5 Challenges Associated with e-governance

Tripathi (2007) provides a comprehensive analysis of e-governance in his work "E-Governance: Perspective and Challenges," emphasizing its application of "Information and Communication Technology (ICT)" with meticulous planning, execution, training, and management. The author underscores the potential of cloud infrastructure in significantly reducing costs associated with maintaining and managing e-services for e-Government, thereby optimizing the use of taxpayer funds. Globally recognized e-government standards are highlighted for their strategic importance in enhancing transparency and accountability within governance institutions. *Tripathi* argues that e-governance facilitates the efficient delivery of services with minimal disruption to citizens, fostering a more responsive and citizen-centric approach. This transformation aims to streamline administrative processes, improve service quality, and "empower citizens through increased access to government information and services". The author's perspective underscores the "transformative impact of e-governance in modernizing public administration, promoting efficiency, and ensuring effective utilization of resources". By embracing digital technologies and standardized e-government practices, institutions can

enhance their operational effectiveness while meeting the evolving expectations of a digitally empowered society.

Sharma, P. et al. (2011) conducted the study titled as "e-Governance in India is the Effectual and Challenging Approach to Governance". The key findings of the study have outlined that, we live in an e-communication age where are interactions are frequent and real time. Governments all across the globe, including those in India have employed electronic communication or e-Governance to regulate both public and private activity. These adoption of e-governance model has potentiality to transform the government and public interactions in positive approach. Moreover, e-communication or e-governance is termed as the quickest and most straightforward method of sharing information. Moreover, the secondary data analysis has helped the researchers to evaluate the efficacy of e-Government in the realm of governance in India. The analysis enabled them to outline the challenges associated with e-governance in India. The prevalent challenges to e-Government have affected its efficacy as well.

Batra (2012), in his work "E-Governance in India," presents a comprehensive view of e-governance as a transformative tool in modern governance. He emphasizes that e-governance integrates government functions, enhances citizen outreach, and provides efficient services and information access, thereby empowering individuals. The overarching goal is to achieve smart governance by redefining administrative practices in the "era of Information and Communication Technology (ICT)". The researcher identifies several challenges hindering India's preparedness for full-fledged e-Government implementation. These challenges, according to *Batra*, encompass geographical, social, and economic factors. Issues such as widespread illiteracy, inadequate infrastructure, and concerns over the security and privacy of personal and financial data further complicate the adoption and implementation of effective e-governance initiatives. Despite these hurdles, researcher acknowledges the significant progress made through various digital initiatives implemented across different states in India. These initiatives have demonstrated remarkable advancements in enhancing government service delivery, transparency, and efficiency. They underscore the potential of e-governance to overcome barriers and bring about positive socio-economic impacts, paving the way for inclusive and digitally empowered governance across the nation.

According to *Mittal and Kaur (2013)*, "Information and Communication Technologies (ICTs)", particularly the internet, are instrumental in improving the provision of government services to businesses, government entities, and citizens within e-Government frameworks. This strategy not only engages the public sector but also influences the regulation and management of private sector operations. The internet facilitates faster service delivery and fosters increased transparency between governments and citizens. Nevertheless, in developing nations such as India, where poverty is prevalent and literacy levels are low, delivering online services to the population poses a considerable challenge. India's e-Readiness Rank is also notably low, with e-readiness defined as the ability of a country to leverage ICTs for economic development and improving the welfare of its citizens.

According to *Malik et al. (2014),* e-governance is an ICT-enabled tool aimed at achieving effective governance. It integrates people, processes, information, and technology to work towards the goal of excellent governance, and can thus be considered a form of integrated governance. In contrast to previous approaches, which primarily used information technology (IT) to automate internal government operations, e-governance facilitates broader engagement and service delivery, making governance more transparent and efficient. Through data processing and transmission, the new system makes use of "information and communication technologies" to support and modify the external workings of governance. All ICTs are included in e-government, but computer networks—from intranets to the Internet—are the main innovation since they provide a foundation for new digital linkages. With the possibility of real-time processing, e-governance becomes more practical and flexible, enabling policies to function better and to a higher standard. Moreover, the key challenges that hinder the "effective implementation of e-governance initiatives" include lack of proper planning, domination in English language during access and rural-urban digital divide.

Nagaraja, K. (2016) conducted a study titled "e-Governance in India: Issues and Challenges", which explores the various issues and challenges associated with the implementation of e-Governance in India. According to the researcher, the Government of India has introduced several policy measures, including "Government to Government (G2G) and Government to Business (G2B)" initiatives, as part of its digital agenda. However, despite the adoption of these

digital initiatives within the policy framework, there are still numerous challenges "hindering the effective implementation of e-Governance in India". The major challenges include trust building, digital divide, cost factor and appropriate infrastructure. India as a nation lies in the transition of development from the governance perspective. Nevertheless, it must incorporate efficient government governance into the socio-economic goals. Almost every country in the world embraced ICT in its administration throughout the ICT period, ensuring that the populace avail necessary goods and services on time. Put differently, these difficulties appear to be roadblocks to the development of e-Government; more importantly, technological, cultural, socioeconomic, privacy, and security issues, are quite looming in. The government is certain that obstacles will overcome and that e-Government will succeed despite the numerous obstacles and limitations. Government is committed to make e-governance a reality and achieve the policy goals in inclusive manner.

According to Bala and Verma (2018), e-governance has significantly transformed the quality, effectiveness, and efficiency of governance. Governments worldwide are increasingly "transitioning from traditional administrative methods to e-governance systems to address the rising demands of their growing populations". The Indian government is actively working to utilize e-governance to improve service delivery to its citizens, striving for greater efficiency, accessibility, and transparency in governance. This shift is irreversible, as it aligns with a global trend. However, "the implementation of e-Government faces numerous potential challenges. Despite the government's extensive efforts to promote e-governance through initiatives like the National e-Governance Plan (NeGP), the outcomes have not been particularly remarkable". Even though there are some successful e-governance initiatives, but there are still areas that demand the timely intervention. The key areas that are concerned under the realm of e-governance include trust deficit among the users, resistance to change, operations cum accessibility cost and privacy and security issues.

> **Research Gap:** Existing literature extensively documents the generic challenges of e-governance, such as digital divide, infrastructure deficits, privacy concerns, and resistance to change (Batra, 2012; Nagaraja, 2016; Bala & Verma, 2018). However, there is a critical gap in context-specific research examining how these challenges manifest in conflict-

prone and rural regions like Kulgam, Jammu and Kashmir (J&K). While studies highlight illiteracy, connectivity issues, and trust deficits (Mittal & Kaur, 2013; Malik et al., 2014), none explore their compounded impact in areas with security risks, political instability, and low digital adoption. Additionally, prior research focuses on national or urban e-governance models (Sharma et al., 2011; Tripathi, 2007), neglecting localized barriers such as socio-cultural resistance, linguistic exclusion (dominance of English), and administrative inefficiencies in decentralized governance structures. Furthermore, despite acknowledging cost and accessibility constraints (Nagaraja, 2016), no study evaluates whether initiatives like e-UNNAT address these challenges effectively in J&K's rural-terrain districts. This research fills these gaps by analyzing Kulgam-specific e-governance hurdles, assessing policy-practice disparities, and proposing conflict-sensitive, vernacular-inclusive strategies to enhance digital governance in backward regions including Devsar and D H Pora of District Kulgam.

2.6 Summary of Research Gaps in Existing Literature

Previous studies act as cornerstones to shape the orientation of research in a particular tune. The review of literature is termed as base for conducting the research and set the objectives of research study. In the context of present research, there have been numerous research studies done in the field of e-Governance in Indian and Jammu and Kashmir and the progress is still going on. All the prominent preceding studies on e-Governance of Jammu and Kashmir have focused on administrative dimensions including service delivery, accountability and transparency, but there is a paucity of research which incorporates the e-UNNAT. e-UNNAT is the new type e-Governance initiative that was launched by the Jammu and Kashmir administration. The prime objective of the initiative if to deliver round the clock services to people in cost-effective and real time mode. Keeping in view the review of literature the following research gaps has been identified:

e-UNNAT represents a novel approach to e-Governance aimed at providing cost-effective and real-time services to citizens round the clock. Despite the comprehensive coverage of various e-Governance dimensions in prior research, there remains a distinct absence of

studies that delve into the specifics of e-UNNAT's implementation and impact, particularly in District Kulgam of Jammu and Kashmir. This gap underscores the need for focused research that can elucidate the evolution, challenges, and outcomes associated with e-UNNAT within the governance framework of Jammu and Kashmir. The identified research gaps highlight several unexplored avenues: Firstly, there is a clear lack of literature detailing the evolutionary trajectory of e-UNNAT in District Kulgam, which hampers a comprehensive understanding of its localized impacts and adaptations. Secondly, the role of e-UNNAT in transforming governance practices and enhancing service delivery mechanisms in Jammu and Kashmir remains largely unexplored. Thirdly, existing studies have not systematically addressed the specific challenges and obstacles encountered during the implementation of e-UNNAT, which are crucial for refining and optimizing its operational effectiveness. Lastly, while previous research has proposed recommendations for revitalizing governance structures in Jammu and Kashmir, the potential contribution of e-UNNAT to these efforts has not been adequately examined or integrated into policy discourse.

Therefore, considering the magnitude and nature of research gaps as identified above, the present research can contribute significantly to enhancing the efficacy and inclusivity of digital governance initiatives, explore the implementation challenges, thereby fostering sustainable development and improving public service delivery under the shadow of e-UNNAT in the region.

2.7 Conclusion

The landscape of e-governance in Jammu and Kashmir is shaped by a dynamic interplay of advancements and persistent challenges. Initially, efforts were concentrated on leveraging "Information and Communication Technology (ICT)"to streamline governance through initiatives like the Jammu and Kashmir e-Government Agency (JaKeGA) and the National E-Governance Action Plan. These initiatives aimed to enhance service delivery in critical sectors such as education, healthcare, and finance, envisioning a more accessible and transparent administration. However, subsequent studies have illuminated formidable obstacles hindering these aspirations. High illiteracy rates, inadequate infrastructure, and limited broadband penetration pose significant barriers to the effective deployment of digital services across the

region. Moreover, issues of departmental coordination and insufficient digital literacy among citizens further complicate these challenges, impeding the full realization of e-governance's potential.

In response to these challenges, the evolution of mobile governance (M-governance) has emerged as a promising strategy to overcome accessibility barriers and combat corruption, particularly in remote and underserved areas of Jammu and Kashmir. By harnessing mobile technologies, M-governance initiatives aim to facilitate easier access to government services and information, thereby fostering greater transparency and accountability. Among the latest developments, the e-UNNAT platform represents a significant stride towards enhancing service delivery efficiency in the region. Launched to provide real-time, cost-effective services, e-UNNAT aims to cater to the diverse needs of Jammu and Kashmir's population. However, despite its potential, there exists a critical gap in the understanding of e-UNNAT's impact and operational challenges, particularly at the district level, such as in Kulgam. Moreover, by bridging the divide between technological innovation and on-the-ground realities, policymakers can better tailor initiatives like e-UNNAT to effectively serve and empower all citizens, irrespective of geographic or socio-economic disparities. This holistic approach is vital for steering Jammu and Kashmir towards a more inclusive and digitally enabled governance framework that meets the evolving needs of its populace.

CHAPTER 3
CONCEPTUALIZING e-GOVERNANCE IN
JAMMU AND KASHMIR

Conceptualizing e-governance in Jammu and Kashmir

3.1 Introduction

The term "e-governance refers to the application of "Information and Communication Technology (ICT)" to enhance the efficiency, accessibility, and transparency of public services". Its primary objective is to encourage greater citizen engagement, minimize bureaucratic obstacles, and improve the delivery of public services. As per the Government of Jammu and Kashmir's policy statement, the focus is on providing cost-effective services to citizens at their doorstep by leveraging information and technology, thereby establishing simple, moral, accountable, responsive, and transparent (SMART) governance. Furthermore, the developmental requirements of the Union Territory of Jammu and Kashmir are met through existing frameworks such as the IT policy, Web policy, and various e-governance initiatives, all of which align with the overarching goals of the e-governance vision and strategy detailed in the following section.

- "The government seeks to utilize information technology to provide transparent, effective, and efficient services to the residents of Jammu and Kashmir Union Territory.
- Information Technology ought to be employed to empower the people living in rural areas.
- IT to be used for leveraging the larger employment opportunities to educated youth of the UT of J&K.

A primary objective of e-Government initiatives is to ensure that information is easily accessible to citizens, thereby improving the efficiency and transparency of service delivery. Accomplishing these aims will support the Government of Jammu & Kashmir's goals for governance and development. To guarantee effective and efficient citizen services, all departmental initiatives must be scalable and interoperable. Moreover, integrating departmental applications on the back-end is essential to allow Common Service Centres to provide a variety of services through a unified interface. In this context, the current chapter provides an overview

of the historical development and implications of e-governance initiatives aimed at delivering services to the people of Jammu and Kashmir.

3.2 Socio-Economic Profile of Jammu and Kashmir

The union territory of Jammu & Kashmir lies in northern part of India that borders with Ladakh, Punjab, and Himachal Pradesh. The UT is heavily adobe and there is a wide range of ethnic and religious groups represented in the community, such as Muslims, Sikhs, and Hindus. The societal structure is diversified one and the occupation cum economic practices vary from region to region.

Image/Chart 3.1: Map of Jammu and Kashmir

Source: Shah & Rodríguez (2011)

The main pillars of Jammu and Kashmir's economy are handicrafts, tourism, horticulture, and agriculture. Jammu and Kashmir have gained popularity as travel destinations due to its mesmerizing beauty, lakes, and lofty mountains. The tourism industry is vital to the

region's economy since it boosts local companies and creates jobs. With initiatives to improve literacy rates and upgrade educational facilities, Jammu and Kashmir has achieved strides in the field of education. In this milieu, the detailed description of "socio-economic profile of Jammu and Kashmir" has been presented below:

Table 3.1: Socio-Economic Profile of Jammu and Kashmir (Census 2011)

Variable	Data (Census 2011)
Population	12,541,302
Male :: Female	6,640,662 :: 5,900,640
Population Decadal Growth	23.64%
Sex Ratio	889
Child Sex Ratio	862
Literacy	67.16 %

Source: Census 2011

The Census 2011 data provides a comprehensive socio-economic profile of Jammu and Kashmir, highlighting key demographic indicators. The total population of the region was recorded at 12,541,302, with a notable male-to-female distribution of 6,640,662 and 5,900,640, respectively. This results in a sex ratio of 889 females per 1,000 males, indicating a gender imbalance that is relatively common in many parts of India. The child sex ratio is even lower at 862 girls per 1,000 boys, reflecting a more pronounced disparity that could have implications for future gender demographics and societal structures. In terms of population growth, Jammu and Kashmir experienced a decadal increase of 23.64%, which underscores a significant rise in the number of residents over the ten-year period leading up to 2011. This growth rate is a critical factor in planning for resource allocation and infrastructure development. Literacy rates in the region stood at 67.16%, "which is lower than the national average and suggests challenges in educational attainment and access". The relatively low literacy rate, combined with the gender imbalance and high population growth, highlights the need for targeted interventions in

education and social policies to address these disparities and support balanced socio-economic development in Jammu and Kashmir.

3.3 Governance Landscape of J&K

Table 3.2: Governance Landscape of J&K

Jammu and Kashmir	
Jammu Region	Kashmir Region
10 Districts:: Jammu, Udhampur, Ramban, Doda, Kishtwar, Rajouri, Poonch, Kathua, Samba, Reasi	10 Districts :: Srinagar, Anantnag, Baramulla, Budgam, Pulwama, Shopian, Kulgam, Ganderbal, Kupwara, Bandipora
Tehsils :: 207	
Niabats :: 523	
GQ: 427	
Patwar Halqas :: 1632	
Villages :: 6850	

Source: JK Finance Commissioner Revenue

The governance landscape of Jammu and Kashmir, as detailed, reveals a structured yet complex administrative framework divided between the Jammu and Kashmir regions. Each region operates under a distinct set of administrative divisions, reflecting the region's diverse geographical and cultural landscape. The Jammu region has been divided into 10 districts, namely Jammu, Udhampur, Ramban, Doda, Kishtwar, Rajouri, Poonch, Kathua, Samba, and Reasi. In the similar context, the Kashmir region is similarly divided into 10 districts: Srinagar, Anantnag, Baramulla, Budgam, Pulwama, Shopian, Kulgam, Ganderbal, Kupwara, and Bandipora. This setup encompasses 207 tehsils and 523 niabats, providing a detailed

administrative framework to manage local governance and services. Each district is further divided into multiple tehsils, which are subdivided into niabats—sub-divisional administrative units that oversee day-to-day governance at the grassroots level. The region includes 427 gram panchayats (GQs), which are local governing bodies, and 1,632 patwar halqas, which are land revenue administrative units. Additionally, there are 6,850 villages, which are the smallest administrative units directly interacting with the rural populace. Overall, the governance structure in Jammu and Kashmir is characterized by a high degree of administrative granularity, with numerous units ensuring detailed management and oversight across the diverse terrains and populations of the region. This structure is pivotal for addressing the unique challenges faced by different areas and ensuring effective local governance and service delivery *(JK Finance Commissioner Revenue)*.

3.4 Governance to Good Governance Through e-Governance

For contemporary governments, delivering services poses a significant challenge. However, "Information and Communication Technology (ICT)" enables governments to offer services more efficiently, transparently, and in a timely manner. People are finding it more difficult to get public services from many departments, especially in rural areas. Modern technology is being adopted by governments worldwide to help solve the problem of service delivery and promote good governance *(Ahmad & Zehra, 2022)*. India, recognized as one of the world's fastest-growing economies, is transitioning from conventional governance to a framework focused on e-governance and good governance. The pursuit of good governance has emerged as a significant topic of debate among academics, international development organizations, social scientists, and development practitioners *(Bala & Verma, 2018)*.

The "fundamental principles of good governance encompass transparency, accountability, public participation, and adherence to the rule of law". Attaining these principles "necessitates the incorporation of Information and Communication Technology (ICT) within government agencies to optimize the public service system, a major challenge confronting modern nations". According to *Garg (2008)*, "e-Government involves the use of electronic tools to improve communication both within and between government departments and the public".

The influence of information technology on our daily lives is profound. This IT-driven transformation has led to a paradigm shift in how we communicate and distribute goods. The administration's function, the decision-making process, and the creation of policies all shift as governments use innovative new tools to make life easier for their residents everywhere *(Jeet, 2006)*. When government's administrative functions gave birth to governance, they also created a new concept known as good governance and opened up new avenues for the government to operate successfully.

The World Bank first used the term "*good governance*" in 1992. The terms "governance" and "good governance" were frequently used synonymously to describe a strategic instrument for quickly attaining overall growth. It is believed that governance is more suitable than good governance. In other words, the concept of "good governance" emerges when innovative strategies and tools are considered to improve the effectiveness of government operations. When interpreted positively, this leads to the idea of a "good government" *(Ahmad & Zehra, 2022)*. According to Kumar, good governance is a multifaceted process that demands a variety of elements, such as the capacity to refine "government processes, connect individuals, and foster social engagement" *(Kumar, 2017)*.

According to the "United Nations Development Programme (UNDP), good governance is characterized as the responsible administration of a nation's affairs across all levels". UNDP identified three foundational pillars of good governance: administrative, participatory, and economic. Additionally, it emphasized that good governance should embody nine key characteristics, including equity building, transparency, consensus orientation, rule of law, participation, effectiveness and efficiency, and accountability *(UNDP, 1997)*. Similarly, the "UN Economic and Social Commission for Asia and the Pacific (UNESCAP) outlined eight essential values of good governance: accountability, transparency, inclusiveness, responsiveness, consensus orientation, effectiveness and efficiency, and equity and inclusiveness" *(UNESCAP, 2008)*. According to *Asian Development Bank*, a government may function most effectively and efficiently when it has four fundamental components of governance including "accountability, participation, predictability and transparency". The components of good governance are outline in given table.

Table 3.3: Elements of Good Governance

UNDP	UNESCAP	ADB
Accountability	Accountable	Accountability
Rule of Law	Transparent	Transparency
Participation	Follows the rule of law	Predictability
Consensus Orientation	Participatory	Participation
Transparency	Consensus oriented	
Effectiveness	Responsive	
Equity Building	Equitable and inclusive	
Strategic Vision	Effective and efficient	
Efficiency		

Source: *Bala & Verma, 2018*

The table outlining the elements of good governance according to UNDP, UNESCAP, and ADB provides a comparative framework to assess governance practices and principles. Each organization emphasizes different aspects of governance, yet there is a shared focus on ensuring that governance systems are both effective and inclusive. The "United Nations Development Programme (UNDP) emphasizes key components of good governance, including Accountability, Rule of Law, Participation, Transparency, and Effectiveness. Accountability and transparency are essential, as they ensure that government actions and decisions are subject to public scrutiny and that officials are held responsible for their conduct". The Rule of Law, as highlighted by UNDP, underscores the significance of robust legal frameworks and their impartial enforcement. Participation and effectiveness underscore the need for engaging citizens in governance processes and ensuring that government actions achieve desired outcomes.

Additionally, the UNDP framework stresses the importance of equity building, ensuring that governance is fair and inclusive for all members of society.

The "United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)" aligns closely with UNDP but offers additional nuances. It emphasizes Accountability, Transparency, and Predictability, reinforcing the need for clear and stable governance processes. Rule of Law under UNESCAP focuses on ensuring that governance adheres to established legal norms. The organization also highlights the importance of Consensus Orientation, ensuring that governance decisions reflect broad agreement and address diverse interests. Participation and Effectiveness are similarly valued, emphasizing citizen engagement and efficient outcomes. UNESCAP's framework also incorporates Equity Building, ensuring governance systems are equitable and inclusive, and highlights Strategic Vision as essential for effective and forward-thinking governance.

The Asian Development Bank (ADB) also underscores Accountability, Transparency, and Participation, but with a specific focus on responsiveness and effectiveness. For ADB, good governance involves not only transparency and accountability but also ensuring that governance mechanisms are responsive to the needs of the population. The Rule of Law and Equity Building are important for maintaining legal integrity and fairness in governance. ADB emphasizes the importance of Efficiency and Strategic Vision, advocating for governance systems that are both effective in their operations and strategic in their planning and implementation. Therefore, it can be inferred from the above data that while all three organizations—UNDP, UNESCAP, and ADB—share common elements of good governance, each provides a unique perspective on the prioritization and interpretation of these elements. UNDP emphasizes the integration of accountability, participation, and effectiveness with a focus on equity. UNESCAP includes a strong emphasis on consensus and predictability, aiming for stable and broadly accepted governance. ADB highlights responsiveness and efficiency, focusing on practical and strategic effectiveness. These frameworks collectively offer a comprehensive view of what constitutes good governance, underscoring the importance of a balanced approach to accountability, participation, and effectiveness in achieving robust governance systems.

To bring the fundamental transformation into the governance mechanism and to provide the transparent and cost effective services to public, diverse set of policy measures have been enacted by Government of India. The key initiatives include National e-governance plan, e-office, Banking, Direct Benefit Transfer (DBT), Crime and Criminal Tracking Network System (CCTNS), Digitalization of Public Distribution Service (PDS), e-Panchayat and others *(Bala & Verma, 2018)*. In the similar context, the union territory of Jammu and Kashmir is no exception to shift towards the concept of e-governance. The key initiatives undertaken in this context are presented in subsequent section.

3.5 e-Governance Initiatives in Jammu and Kashmir

Khidmat Centres: The establishment of "*Common service centres (CSCs)*", as they are called in different states, are located in each state. Khidmat Centre is the term given to these CSC in Jammu and Kashmir. The Public Private Partnership (PPP) model was selected by J&K state to implement CSCs in collaboration with Jammu and Kashmir Bank. In addition to other private industries, the Khidmat centres offer excellent and reasonably priced "services in the areas of e-governance, education, health, and entertainment" *(Ahmad & Zehra, 2022)*.

State Wide Area Network (SWAN): One of the main foundations that support the nation's digital endeavours in the e-Government arena is the "State Wide Area Network (SWAN)". SWAN seeks to provide a specialised, integrated network for voice, video, and data transmission over the UT of J&K. By guaranteeing a interconnected communication network for safe and fast connectivity, it seeks to improve governance. In order to achieve vertical connection by creating Points of Presence at the UT, District, and Block levels, all "Block Headquarters (BHQs)" will be connected to the "State Headquarters (SHQs)" through "District Headquarters (DHQs)". Furthermore, it is enabling horizontal communication at the block and district levels. By linking SHQ, DHQs, and BHQs, the SWAN network aims to establish a specialised "*Closed User Group (CUG)* network" and offer safe, fast connectivity for government operations. The network will provide online application processing, email, video conferencing, multi-user and multi-service capabilities, inter-District and inter-Departmental connectivity. SWAN will also make it possible for officers to communicate and share information more effectively, which will

lead to more coherent administration. As of 2023, Multi-protocol Label Switching (MPLS) has been commissioned in 1SHQ, 20DHQ's and 153 BHQs i.e. a total of 174 locations (*https://jakega.jk.gov.in/projects.html*).

Establishment of ICT Labs and CAL Centres: A key objective of the initiative to establish "Information and Communication Technology (ICT)/Computer Aided Learning (CAL) Labs" in schools is to integrate IT-enabled services into the education sector. Smart classrooms and ICT/CAL labs are being implemented to enhance the public's understanding and practical application of educational concepts. By setting up ICT/CAL Labs and digital smart classrooms in government schools across Jammu and Kashmir, "IT-enabled services can be effectively utilized in the field". As of 2023, under the "Samagra Shiksha program, the JaKeGA IT department has established 382 CAL centers and 630 ICT labs in 1012 government schools across all districts of Jammu and Kashmir" (*https://jakega.jk.gov.in/projects.html*).

Jammu and Kashmir State Data Centre (SDC): The Jammu and Kashmir State Data Centre (JKSDC) was established to assist the state in optimizing its infrastructure, applications, and services, enabling "efficient delivery of electronic government-to-government (G2G), government-to-citizen (G2C), and government-to-business (G2B) services. JKSDC was created to provide adequate space for the Information, Communication, and Technology (ICT) resources of various departments in the Union Territory, ensuring they are housed in an environment that meets their requirements for security, interoperability, scalability, and reliability". By allowing different departments to host their services and applications on a single infrastructure, IT facilitates effective management and ease of integration while guaranteeing that computer resources and supporting connection infrastructure are used appropriately and optimally. Since March 2013, the SDC has been in operation. At the moment, the State Data Centre (SDC) hosts 144 websites and/or applications from various government agencies. In addition to hosting several applications such as the State Portal under SSDG, SDC also deploys e-Services such as the "Direct Benefit Transfer Application (IGNOAPS), the Prisons Application, the e-Assembly Application, the Domicile Application" and others. The aforementioned SDC project was finished in 2018, and the J&K e-Governance Agency's IT Department launched a new project in 2019 called "Modernization, Management & Operations

of State Data Centre Jammu" to ensure the long-term viability of the State Data Centre. The project is currently in progress and will provide the computational capabilities needed to host several e-Government projects from different UT of J&K ministries *(https://jakega.jk.gov.in/projects.html)*.

Digital Village Centres: The "Back to Village via Digital Means" initiative has been launched as a pilot project by the Information Technology Department and JaKeGA in 44 villages across 20 districts of Jammu and Kashmir. Through digital interventions, "each digital village has been developed as a cohesive administrative unit, integrating secretariat, district, and block-level functions". This makes it possible for the government to distribute its policies and programmes via an easily accessible mechanism. In these forty-four villages, every panchayat has been provided with IT infrastructure and connectivity, including desktop computers, LED lights, WiFi, hotspots, and video conferencing equipment. Consequently, the rural populace of that specific Panchayat will have access to the internet *(https://jakega.jk.gov.in/projects.html)*.

e-Office: Hundreds of trucks were moved as part of the "Darbar Move" routine to carry infrastructure and official documents over the more than 300 kilometres that separate Jammu from Srinagar and vice versa. Up until 2020, the practice was carried out at a current yearly expenditure of about Rs 400 crore. The 148-year-old custom, which is carried out twice a year, has come under fire due to the enormous expenses to the "exchequer—roughly Rs 200 crore for one-way travel—and the unintentional consequences", which can sometimes undermine the goal of helping residents in both UT divisions. The offices of the UT administration at the civil secretariat have entirely moved to a new location, negating the need to physically carry documents and papers from Jammu to Srinagar and the other way around. Enhancing productivity, internal procedures, decision-making openness, and public participation are top priorities for the Jammu and Kashmir government as part of inclusive governance in the region's upper Kashmir. Before a judgement is made, the "physical file transfer of these documents takes a lot of time, money, and constant supervision from desk to desk". In most government workplaces, theft and file loss are also frequent occurrences. In this case, having a system that allows an authorised employee to find the necessary files and/or papers as quickly as possible was urgently needed. One of the most significant administrative improvements in the field of e-

Government in the Government of Jammu and Kashmir is the eOffice platform, which has revolutionised the clear and effective operation of the government. The UT of J&K's adoption of e-office has significantly increased efficiency and openness in the way government business is handled overall and in Jammu and Srinagar, in addition to guaranteeing government operations in both locations. It is possible to determine and enhance the average disposal rate for the first time. Additionally, the UT exchequer has saved Rs. 400 crores annually as a result of it *(https://jakega.jk.gov.in/projects.html)*.

Mobile Dost Mobile App: The Government of J&K launched the Mobile Dost Mobile App as a way to give citizens a "single point of contact for all government services, emergency helplines, and other information services". It is a smartphone app that is available in Hindi and English. A citizen should download the Mobile Dost app and register by giving information such as their name, phone number, and the OTP they received on their phone number. You can select your preferred language (Hindi or English) after registering. With this mobile app, registered users can access all services. Additional services include the most recent job openings, open tenders, utility bill payments, services for employees and pensioners, news, forthcoming events, a calendar, the J&K government directory, and more (https://mobiledost.jk.gov.in/). This is a good move on the part of the government to deliver citizen-centric services in the U.T. via mobile devices. The introduction of Mobil-Dost-App in Uttarakhand also gave Jammu & Kashmir digital empowerment. The administration is dedicated to provide its citizens smooth services through this app, encouraging accessibility, mobility, openness, and efficiency in government *(Malik, I. A., 2023)*.

Image/Chart 3.2: Official View of Mobile Dost App

3.6 Common Service Centers/Khidmat Centers: An Overview

Common Service Centers (CSCs) represent a crucial initiative under the "Ministry of Electronics & Information Technology (MeitY)", designed to empower rural India by providing access to digital services. Launched as part of the National e-Governance Plan (NeGP) in 2006, the program's main goal is to offer high-quality, affordable services, including e-governance, health, education, telemedicine, and entertainment, to rural and remote regions. The initiative fosters a public-private partnership (PPP) model that involves multiple stakeholders, including Village Level Entrepreneurs (VLEs), Service Centre Agencies (SCAs), and State Designated Agencies (SDAs), ensuring a decentralized yet unified approach to service delivery *(Sharma et al., 2021)*. Common Service Centers (CSCs) serve as vital platforms for enabling e-service delivery, allowing citizens to carry out essential transactions using "Information and Communication Technology (ICT)" tools. These centers bring public services closer to individuals, effectively delivering them to their doorsteps. To enhance public service accessibility in rural areas, the Government of India (GoI) has created a network of 250,000 CSCs, employing over a million people across the country to provide digital services to rural communities *(Dwivedi, Y. K., et al., 2016)*.

Through its vast network, CSCs provide essential services, bridging the digital divide in India by bringing e-governance closer to rural citizens. The Village Level Entrepreneurs (VLEs)

are the operational backbone of CSCs, facilitating service delivery to local communities. The Service Centre Agencies oversee a cluster of CSCs, ensuring that operations remain effective and aligned with state policies. The State Designated Agencies, appointed by state governments, manage the execution of the scheme at the state level, ensuring uniformity and scalability. The launch of CSC 2.0 in 2015 marked a substantial expansion of the program, ensuring the presence of at least one CSC in each of the "2.5 lakh Gram Panchayats across India". This growth was achieved by utilizing existing infrastructure such as the "State Wide Area Network (SWAN), State Service Delivery Gateway (SSDG), and National Optical Fiber Network (NOFN), enabling efficient and effective service delivery in rural regions" (*https://csc.gov.in/scheme*).

Common Service Centers (CSCs) are closely aligned with the objectives of the "Digital India initiative, which aims to transform India into a digitally empowered society and knowledge-driven economy". They play a direct role in advancing three key pillars of the "Digital India mission: delivering digital infrastructure as a utility to all citizens, ensuring governance and services are available on demand, and promoting the digital empowerment of citizens". By providing access to e-governance and other essential services in rural areas, CSCs are leading India's digital transformation, contributing significantly to the vision of a digitally inclusive nation. Therefore, Common Service Centers are not only an integral part of India's e-governance framework but also a critical enabler of the Digital India vision, enhancing service accessibility and driving digital literacy across the country.

The Khidmat Centre Project, initiated in 2009, aims to provide accessible government services and promote digital literacy in rural and remote areas. It serves as a crucial platform for delivering e-governance services, bridging the gap between citizens and government (*Daily Excelsior, 2023*). Both initiatives are built on the Public-Private Partnership (PPP) model, where local entrepreneurs play a "crucial role in ensuring the efficient delivery of services to the grassroots level". Like CSCs, Khidmat Centers offer a wide range of services such as e-governance, health, education, and utility bill payments. They enable citizens to access various government schemes, apply for certificates, and register for services like ration cards and social security benefits. The Khidmat Centers also focus on digital empowerment by providing access to educational content, telemedicine, and skill development opportunities, much like the services offered at CSCs (*Ahmad & Zehra, 2022*).

Image 3.3: Khidmat Center's Logo

In terms of infrastructure, both Khidmat Centers and CSCs leverage existing technology networks, such as the National Optical Fiber Network (NOFN) and State Wide Area Networks (SWAN), to ensure seamless service delivery. This alignment with the *Digital India* mission is evident in both initiatives' focus on providing digital infrastructure as a utility, enabling governance on demand, and empowering citizens through technology. While Khidmat Centers cater specifically to the needs of Jammu and Kashmir, their model closely mirrors that of the CSCs, and both contribute to India's broader digital transformation by making government services more accessible, inclusive, and efficient for rural and underserved populations.

3.7 e-UNNAT: Structure and Functions

e-UNNAT (Unified Network for New and Transparent Governance) is an ambitious and transformative initiative launched by the Jammu and Kashmir Government aimed at revolutionizing governance through the use of advanced digital technologies. The primary goal of e-UNNAT is to establish a more efficient, transparent, and accountable administrative framework that enhances service delivery while minimizing bureaucratic delays and inefficiencies. This initiative is a vital part of the larger digital governance strategy under the Government of India's Digital India program, which seeks to empower citizens digitally and improve accessibility to government services. The e-UNNAT project emphasizes the use of

"Information and Communication Technology (ICT)" to streamline government operations by simplifying processes and improving public access. It features an integrated framework that connects multiple departments, government officials, and citizens through a centralized platform. This interconnected system seeks to break down traditional silos within administration, enabling seamless communication and information exchange between stakeholders.

The platform also promotes transparency by making government operations more visible and traceable. Citizens are provided with real-time information and the ability to track the status of their applications or service requests. Moreover, the system enables direct communication between the public and government departments, allowing for quicker resolution of issues. e-UNNAT is supported by state-of-the-art IT infrastructure, including dedicated data centers, online portals, and mobile apps, ensuring that the services are not only efficient but also secure and reliable. This modern approach aims to enhance governance in Jammu and Kashmir by making it more responsive and citizen-centric. The primary functions of e-UNNAT revolve around transforming governance by improving the efficiency of government service delivery, enhancing transparency, and reducing corruption. One of the key ways it achieves this is through the digitization of government processes, which results in faster processing of applications, improved tracking of government expenditures, and a significant reduction in bureaucratic inefficiencies. This streamlined approach not only accelerates the delivery of services to the public but also minimizes delays often caused by manual processing and paperwork. By automating many procedures, e-UNNAT fosters a more transparent system where the public can track progress and access real-time updates about their requests or applications.

Another important aspect of e-UNNAT is its ability to ensure accountability in government operations. By providing mechanisms to monitor the performance of government officials and agencies, it holds them responsible for the timely and effective execution of public programs. The platform also enables data-driven decision-making, allowing the government to analyze trends and outcomes, which in turn aids in the formulation of more informed policies and better resource allocation. e-UNNAT offers a wide range of services to citizens, such as e-filing grievances, applying online for various government schemes, paying utility bills, accessing important documents, and receiving real-time updates on government schemes.

Additionally, the platform allows citizens to track the progress of their applications and receive notifications about their status. The single-point access simplifies the interaction between the public and the government, ensuring a smooth and user-friendly experience. Ultimately, e-UNNAT is a significant step in modernizing governance in Jammu and Kashmir, making it more responsive, transparent, and accessible to its residents.

Image/Chart 3.4: Official Overview of e-UNNAT Website

Source: Official Website of e-UNNAT

Image/Chart 3.5: Application Management Matrix of e-UNNAT (as of 29ᵗʰ February 2024)
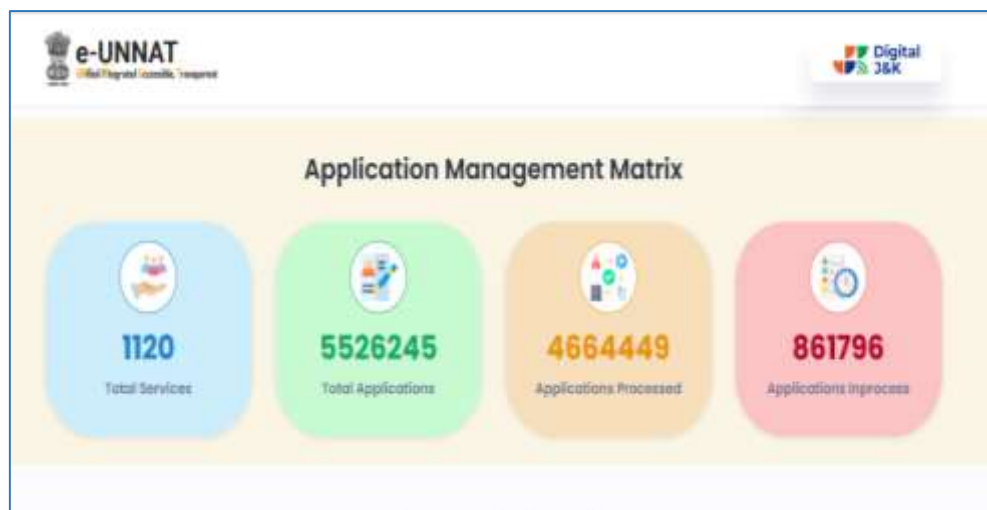
Source: Official Website of e-UNNAT

The Application Management Matrix of e-UNNAT as of 29th February 2024 reveals significant progress in the digitization and management of government services in Jammu and Kashmir. With a total of 1,120 services available on the platform, e-UNNAT has processed 5,526,245 applications, which reflects the high volume of public engagement with the system. Out of these, 4,664,449 applications have been successfully processed, representing an impressive 84.3% of the total applications. This indicates the effectiveness of the platform in delivering timely services to the citizens, streamlining administrative processes, and reducing bureaucratic delays. However, there are still 861,796 applications currently in progress, which accounts for 15.6% of the total applications. While this is a smaller proportion, it highlights the need for continuous monitoring and optimization of the system to ensure faster processing times and the resolution of pending cases. The remaining in-progress applications could represent complexities, additional verification, or delays in specific services. At large, e-UNNAT appears to be functioning effectively, with the majority of applications being processed in a timely manner. Nevertheless, there remains room for improvement in expediting pending applications and further enhancing the system's efficiency, which would contribute to better citizen satisfaction and governance outcomes in Jammu and Kashmir.

3.8 Intersection of PSGA and e-UNNAT

The "Public Service Guarantee Act", also known as the "Right to Public Services (RTPS) Act", is legislation implemented across various Indian states to ensure that citizens receive specific public services within designated timeframes. These services encompass obtaining certificates, licenses, permits, and accessing government schemes. The principal objective of the PSGA is to augment transparency, efficiency, and accountability in public service delivery by holding government departments responsible for timely service provision. Additionally, PSGA fosters citizen-centric governance through mechanisms facilitating the submission of complaints and seeking remedies in instances of service delays or refusals. Each Indian state or union territory may enact its own iteration of PSGA tailored to suit local requirements and administrative capacities. Despite variations in particulars, the fundamental

goal of ensuring punctual and hassle-free access to essential public services remains consistent across these enactments.

In essence, PSGA constitutes a significant stride towards advancing governance standards in India by institutionalizing obligations for prompt and accountable public service delivery. This framework seeks to "improve the overall quality of life for citizens by ensuring efficient administration and responsiveness in service delivery". In a similar vein, the government of Jammu and Kashmir enacted the "Jammu and Kashmir Public Service Guarantee Act, 2011 (PSGA), which came into effect in August 2011". This legislation marks a significant step toward expediting the provision of services to the state's residents and addressing issues of corruption. The PSGA in Jammu and Kashmir, akin to its counterparts in other Indian states, guarantees citizens timely access to essential public services. By establishing clear timelines for service delivery, the PSGA aims to enhance transparency and efficiency in governance while empowering citizens to hold government departments accountable for their commitments. This legislative framework underscores the "government's commitment to fostering good governance practices and improving the overall quality of public service delivery in Jammu and Kashmir" *(PSGA Official Act).*

In March 2023, the Chief Secretary (CS) of Jammu and Kashmir unveiled the "auto-appeal feature of the Public Services Guarantee Act (PSGA) for multiple online services provided by the administration". Describing this innovation as revolutionary, CS commended the IT department for seamlessly integrating this feature into various digital services offered across different departments to benefit citizens. The auto-appeal feature aims to streamline the process of addressing grievances related to public services by automating the appeals process, thereby enhancing transparency and efficiency in governance. The Chief Secretary's endorsement underscores the administration's commitment to leveraging technology to improve service delivery and ensure accountability. This initiative reflects a significant step towards enhancing citizen-centric governance in Jammu and Kashmir through the effective utilization of digital platforms and IT solutions *(Khajuria, S: The Times of India: Online: March 05 2023).*

Reports from the service portal, e-UNNAT, indicate that over 90% of public services are consistently delivered on schedule. The integration of 445 services within the e-UNNAT portal

facilitates real-time service provision, with applicants able to provide feedback through the Rapid Assessment System (RAS), thereby gauging public satisfaction levels effectively. This system not only ensures prompt service delivery but also enhances transparency and accountability in governance. The utilization of e-UNNAT underscores a proactive approach by the administration to leverage digital platforms for optimizing service delivery mechanisms and improving overall public service performance. Such initiatives are pivotal in modernizing administrative processes, fostering citizen trust, and addressing challenges related to service delivery efficiency in the contemporary digital age *(ibid)*.

On March 16, 2023, the Jammu and Kashmir government broadened the scope of the "Jammu and Kashmir Public Services Guarantee Act (PSGA)", 2011 by adding 102 new services from more than a dozen departments. This move, authorized under sections 4 and 8 of the PSGA, is intended to guarantee the timely provision of essential services to the public. Designated officers and Appellate Authorities have been appointed for each service, with specific timelines established for their delivery. Among the newly incorporated services are the issuance of "Unemployment certificates (within 15 days) and Land passbooks (within 10 days) by the Revenue department, e-auctioning of saffron (within 45 days) by the Agriculture Production Department, and registration processes such as doctors with the J&K Medical Council (within 30 days) and pharmacists (within 30 days)" under the Health and Medical Education (HME) department *(Greater Kashmir: Online: March-16-2023)*.

Additionally, services under the Rural Development and Panchayati Raj department, such as the issuance of job cards (within 15 days), and applications related to ration cards (within 30 days) and fair price shop allocations (within 130 days) under the Department of Food, Civil Supplies, and Consumer Affairs, are now included under the PSGA. Furthermore, social welfare schemes such as the Mumkin and Tejaswini Livelihood schemes (within 30 days), Spurring Entrepreneurship Initiative (SEI) (within 30 days), Sahyta - Financial assistance for youth in distress (within 30 days), and educational support schemes like the HLG Super 75 Scholarship and Parvaaz Coaching Scheme (both within 45 days), have also been brought under the PSGA framework. This expansion highlights the government's dedication to improving administrative efficiency, transparency, and public service delivery across various sectors in Jammu and

Kashmir *(ibid)*. In the given context, the service delivery under PSGA, supported by the e-UNNAT initiative, is outlined below:

Table: 3.4: Certificate Delivery Status under e-UNNAT

Certificate Delivery Status in e-UNNAT Under PSGA as of 20-September-2024		
1	Certificate Delivered (within PSGA)	2348184
2	Certificate Delivered (PSGA + 7 days)	186637
3	Certificate Delivered (PSGA + 15 days)	138629
4	Certificate Delivered (Beyond PSGA + 15 days)	765853

Source: Official Website of e-UNNAT

As of September 20, 2024, data from the official e-UNNAT website reveals the delivery status of certificates under the Public Services Guarantee Act (PSGA), providing insights into the efficiency and timeliness of service delivery. A total of 2,348,184 certificates were delivered within the stipulated timeframe as mandated by PSGA guidelines. These certificates were processed and provided to applicants within the specified deadlines, reflecting adherence to regulatory standards aimed at ensuring prompt service delivery. Additionally, 186,637 certificates were delivered within 7 days beyond the PSGA timeframe, indicating a slight delay but still within a reasonable timeframe. Furthermore, 138,629 certificates were delivered within 15 days beyond the PSGA deadline, highlighting a moderate delay in some cases. Notably, 765,853 certificates were delivered beyond 15 days from the PSGA deadline, signifying significant delays in service provision. This comprehensive analysis underscores both achievements and challenges in certificate delivery under e-UNNAT and PSGA. While a substantial number of certificates were delivered promptly within PSGA timelines, a notable portion experienced delays, emphasizing the need for continued efforts to improve efficiency, streamline processes, and enhance accountability in public service delivery. Such data-driven insights are crucial for policymakers and administrators to optimize service delivery mechanisms and ensure greater citizen satisfaction and trust in government services.

3.9 Integration Under e-UNNAT

e-UNNAT (Unified Network for New and Transparent Governance) is deeply interconnected with various national and state-level digital governance initiatives, creating a synergistic framework for enhancing public service delivery and transparency in Jammu and Kashmir. One of the key intersections is with India.gov, the national portal that serves as the gateway to government services and information in India. By aligning with this platform, e-UNNAT ensures that citizens in Jammu and Kashmir can access essential services and information seamlessly, contributing to the Government of India's vision of a unified digital landscape. Furthermore, e-UNNAT is closely linked with NEGP (National e-Governance Plan), which aims to facilitate the delivery of government services electronically. This initiative emphasizes the use of "Information and Communication Technology (ICT)" in providing services to citizens, with e-UNNAT playing a crucial role in this national effort within the Jammu and Kashmir region. It also aligns with the objectives of Digital India, the "flagship program of the Government of India, which seeks to transform the country into a digitally empowered society and knowledge-driven economy". e-UNNAT contributes to the goals of Digital India by enhancing the accessibility of government services through digital platforms.

Image/Chart 3.6: e-UNNAT Integration
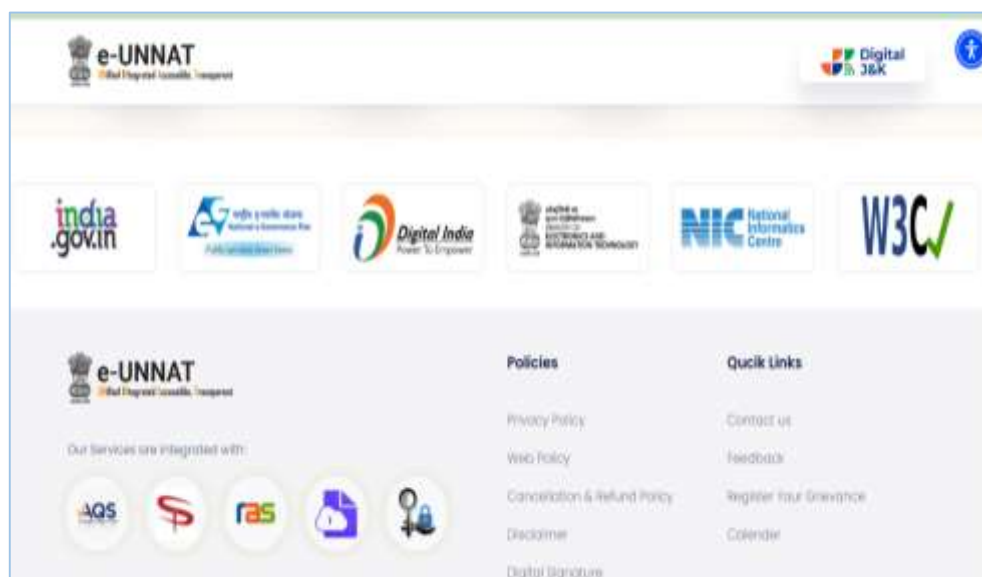
Source: e-UNNAT Official Website

The "Ministry of Electronics and Information Technology (MeitY)" and the "National Informatics Centre (NIC)" play a significant role in providing the necessary technological support and infrastructure for e-UNNAT. These bodies ensure that e-UNNAT is supported by reliable and secure IT systems, allowing for efficient service delivery and secure data management. e-UNNAT also interacts with W3C (World Wide Web Consortium) standards, ensuring that its digital services are accessible, user-friendly, and adhere to global web standards. The integration of DigiLocker, a government initiative that allows citizens to store documents digitally, complements e-UNNAT by enabling residents of Jammu and Kashmir to securely access and share documents related to government services. Similarly, Meri Pehchann, an initiative for digital identity management, strengthens the authentication process in e-UNNAT, ensuring secure and accurate identification for service users.

Additionally, e-UNNAT interfaces with state-level platforms such as Jansugam.jk.gov.in, a government service portal for the residents of Jammu and Kashmir, and state.ras.gov.in, which deals with the state's administrative services. These platforms work in tandem with e-UNNAT, enhancing the delivery of services and providing a transparent, unified experience for citizens. Through this intersectionality, e-UNNAT exemplifies how regional and national digital platforms can converge to provide efficient and transparent governance.

3.10 Significance of e-governance in Jammu and Kashmir

The importance of e-governance in Jammu and Kashmir has grown significantly with the introduction of various national and regional digital governance initiatives. With the rollout of the "National e-Governance Plan (NeGP) 2.0", also referred to as "e-Kranti", the Government of India has expedited the digital delivery of public services nationwide. This initiative is a key component of the broader Digital India program, which seeks to improve the accessibility and efficiency of government services through online platforms. "The goal of these efforts is to digitize government-to-citizen transactions in sectors like education, health, banking, and public services, ensuring that residents from all socioeconomic backgrounds can benefit from government services in a more accessible and timely manner". In Jammu and Kashmir, the administration has embraced e-governance to foster inclusive development and promote people-

centered governance. A major component of the region's e-governance strategy is the shift towards participatory governance, which emphasizes transparency, accountability, and accessibility. The administration's slogan #Badalta-Khilta Jammu-Kashmir reflects its commitment to reforming governance structures and improving service delivery.

Key objectives include the promotion of digital governance and mobile governance (m-Governance), ensuring governance can be accessed anytime and anywhere. Furthermore, there is a focus on eliminating outdated, expensive practices like the "Darbar Move," which involved physically moving government offices between Jammu and Srinagar twice a year, thereby resulting in significant financial and administrative inefficiencies. Another important initiative is the transition from multiple portals to a single unified platform, e-UNNAT, which integrates various services and simplifies access for citizens. This also aligns with the implementation of the Public Service Guarantee Act (PSGA), 2011, through an automated appeal system known as 'Robust Citizen Feedback (RAS).' This system is designed to ensure the timely delivery of services, and when services are delayed, automatic appeals are triggered, enhancing the responsiveness of the administration *(Greater Kashmir: November-13-2023).*

As of August 2023, Jammu and Kashmir has become a frontrunner in providing online services. With "1,050 citizen-centric e-services available on the e-UNNAT platform, the union territory has surpassed other states and union territories in terms of the number of online services". For instance, Kerala offers 911 e-governance services, and Madhya Pradesh provides 1,010 services, but Jammu and Kashmir has outpaced them, with a substantial increase in online services under the "Digital J&K Programme." Launched in mission mode, the program has seen a significant expansion from only 35 services in 2019 to 1,050 in 2023. This rapid growth highlights the government's commitment to digital transformation and providing a more efficient public service delivery system *(Malik, I. A., 2023).*

The revision of the "Public Services Guarantee Act (PSGA)", 2011, to include online services under its purview demonstrates the government's dedication to ensuring timely service delivery. The Autoappeal System, a part of this revision, guarantees that services are delivered within a specified timeframe. If delays occur, the system automatically escalates the appeal, ensuring transparency and accountability. This mechanism holds the government accountable

for providing services within the stipulated time, and fines are imposed on delayed service delivery, further incentivizing timely performance. This development has contributed to a more efficient and accountable public service system, ensuring that citizens' requests are processed swiftly. A significant part of Jammu and Kashmir's digital governance strategy is the e-UNNAT portal, which integrates all government services into a single, unified, and accessible platform. Launched on July 14, 2022, e-UNNAT serves as the J&K Integrated Services Delivery Portal, where citizens can access a wide range of services. The platform reduces the need for citizens to visit multiple portals for different services, streamlining the process and improving accessibility. Additionally, the bilingual Mobile Dost App, launched by the J&K government, further enhances accessibility by providing a "single point of contact for all government services, emergency hotlines, and other essential information" *(Greater Kashmir: November-13-2023)*.

With the launch of the Digital J&K plan in 2022, Jammu and Kashmir has not only improved its digital infrastructure but has also positioned itself as a leader in the field of e-governance in India. The region, once seen as lagging behind in governance, has transformed into a role model for others to follow. The introduction of digital governance has "significantly impacted the efficiency and reach of public services, making it easier for citizens to access government schemes and services". This transition to digital governance reflects the region's forward-thinking approach to addressing governance challenges and preparing for a future driven by technology *(Malik, I. A., 2023)*.

3.11 Re-Engineering Governance using Technology

The modern era has witnessed the dawn of technological innovations having potential to fundamentally transform the governance mechanism. e-Governance is the term for the application of ICTs in organizational operations. Largely speaking, e-Government has drastically changed the nature of both police administration and governance in general. In light of governance, *Osborne and Gaebler's* 1992 book "*Reinventing Government*" established the theoretical foundation of e-governance under the realm of public administration. Though ICT was still in their infancy at the time, the ideology of reinvention or reengineering did not assess

their explicit function; rather, it served as a prelude to transform the government's communication mechanism and service delivery. Subsequently, in the middle of the 1990s, the majority of governments in the West developed policy declarations to carry out e-Government initiatives and implemented tactics to restructure governmental functions. In this milieu, the establishment of National Information Infrastructure was established in the "United States of America". Akin measures were also pursued by industrialised nations such as the United Kingdom, Canada, France, Japan, Australia, and Singapore *(Bellamy and Taylor 1998)*.

In the words of *Hood (1991)*, the organisational change patterns linked to e-Government were found to be consistent with New Public Management (NPM), which continued to be the dominant paradigm in public administration. ICTs have generally enabled public organisations to achieve significant gains in service delivery performance, which has ushered in the introduction of new ideas such as "transformation, "business process reengineering" (BPR), and "business process innovation" *(Hammer and Champy 1993)*. These novel ideas necessitated a radical management strategy to reinterpret organisational fundamentals as vertical command and control, division of labour, hierarchy, and superior-subordinate relationships. Management experts have been aware of two issues during this period of transition. These include the NPM-related transaction costs and the maximum efficiency improvements that can be realised by process automation. By investing in the fields of commerce, welfare taxes, and public safety, the "National Performance Review commission in the United States has investigated the information sharing between the government, corporations, and individuals" *(Scott Morton, 1991)*.

In order to connect national governments and European institutions, the Trans European Public Administration Network was founded to enable long-term infrastructure investment *(Bellamy and Taylor, 1998)*. The phrase "X-engineering" was first used by *James Champy* in 2002 to describe how the internet may propel businesses to unprecedented levels of productivity. Redesigning the business transaction process is necessary for this. Followed by, the late 1980s witnessed multitude of historic developments in India in relation to e-governance. The establishment of "National Informatics Centre (NIC)", National Task Force on IT, 1998, IT Act, 2000 and National e-Governance Plan 2006 are the prominent initiatives in India. Moreover, the inclination towards e-governance is not a sudden phenomenon, but a systematic process initiated

under the recommendations made by the Second *Administrative Reforms Commission (ARC)* in its 11th report, which was released in December 2008. To streamline the governance mechanism, these e-governance initiatives have been divided into four broad categories as mentioned below:

G2B (Government to Business)

G2B (Government to Business) refers to the interaction and exchange of information between the government and businesses. It involves online services such as licensing, permits, tax filings, and regulatory compliance. This model simplifies processes, reduces bureaucratic delays, and enhances business efficiency, fostering a better business environment and growth.

G2C (Government to Citizen)

G2C (Government to Citizen) involves direct communication and service delivery from the government to its citizens. It includes services such as applying for documents (passports, IDs), accessing welfare programs, and engaging in public services like healthcare, education, and utility management. G2C aims to improve accessibility, transparency, and convenience for citizens.

G2G (Government to Government)

G2G (Government to Government) pertains to the exchange of information and services between various government agencies or levels of government. It includes activities like data sharing, interdepartmental coordination, and joint initiatives for governance. This model enhances efficiency, reduces duplication of efforts, and promotes seamless delivery of public services.

G2E (Government to Employee)

"G2E (Government to Employee) encompasses the interaction between government institutions and their employees". It includes services such as payroll management,

benefits administration, performance evaluations, and internal communication. G2E systems are designed to streamline human resource processes, enhance employee satisfaction, and promote efficient governance by offering employees convenient access to necessary resources and information.

The integration of technology and governance holds significant potential to advance good governance. As former "UN Secretary-General Kofi Annan" stated, "good governance is a force that upholds the rule of law, respects human rights, strengthens democracy, and promotes transparency and efficiency in public administration". While "governance" is a neutral term focused on political and technocratic processes, "good governance" carries a normative dimension, emphasizing that governance should be "good" rather than "bad." Good governance encompasses the processes that guide political and socioeconomic interactions while ensuring democratic principles, reliable services, and fair and honest practices. In this context, e-governance is defined as a form of governance that leverages information and communication technologies (ICT) to enhance good governance by "improving processes and structures across various levels of government, the public sector, and other domains" *(Bala & Verma, 2018)*.

In the Indian context, e-governance is defined as "the application of information technology to government processes to achieve Simple, Moral, Accountable, Responsive, and Transparent (SMART) governance." However, challenges such as rapid population growth, cultural diversity, widespread poverty, and high illiteracy rates complicate the government's service delivery systems. To address these issues, there is a pressing need to improve existing governance and service delivery mechanisms. E-governance has been recognized as a critical driver of transformative progress in enhancing the effectiveness, efficiency, and quality of governance. Implementing an information and communication technology (ICT)-driven governance strategy is essential to foster greater accountability and transparency. The Government of India (GoI) is transitioning from manual governance methods to integrating technology into governance processes. While GoI is increasingly leveraging ICT to its full potential and investing substantial resources in e-governance initiatives, the question remains: Are these efforts yielding the desired outcomes and moving in the right direction? *(ibid)*.

Therefore, the re-engineering from Public Administration perspective is a part of the dominating phenomena of e-Government, New Public Management, and Good Governance since the Public Administrative Systems are being fundamentally transformed by the exponential rise of ICTs. The conventional theories, models, paradigms, precepts, and principles ought to pick up the slack left by the ICTs. Reimagined and redesigned, governments are adjusting to changes at the local, regional, national, and international levels *(Dror, Y. 2001)*.

3.12 Comparative Analysis of NeSDA 2021 with Reference to Jammu and Kashmir

The National e-Governance Service Delivery Assessment (NeSDA) 2021 reveals significant shifts in the digital governance ecosystem in India, with a clear emphasis on integrated service portals and enhanced citizen-centric delivery mechanisms. In this context, Jammu and Kashmir (J&K) has emerged as a standout Union Territory (UT), ranking highest among all UTs for both the State Portal and Services Portal categories. This performance is particularly remarkable as J&K was assessed for the first time in NeSDA 2021, following its reorganization as a UT. The region achieved nearly 90% overall compliance across assessment parameters, including accessibility, content availability, ease of use, and information security. This ranking not only reflects a substantial administrative push towards digitization but also signals an effort to bring governance closer to the people in a geographically complex and politically sensitive region. The achievement, therefore, is not just technical but symbolic of a deeper integration into the national digital governance framework *(Ministry of Personnel, Public Grievances & Pensions. (2022, June 12))*.

When compared to other UTs, the success of J&K is particularly pronounced. Traditional front-runners like Delhi, Chandigarh, and Puducherry, which have had stable administrative frameworks and more extended exposure to e-governance, lagged behind in both portal rankings. For instance, Delhi, despite being the national capital, stood fourth among UTs in State Portals and third in Service Portals, while Puducherry did not breach the top three in either list. In contrast, J&K secured the top position in both categories, suggesting a strong administrative intent and effective implementation. This contrast reveals that newer entrants in the e-governance space can outperform older counterparts with focused interventions, strategic

capacity building, and efficient stakeholder coordination. Furthermore, J&K's success stands out even more when viewed against the backdrop of regions like Ladakh, which shared similar administrative transitions but did not perform comparably. The disparity suggests that policy implementation alone is not sufficient; execution, infrastructure, and sustained digital governance outreach play critical roles *(ibid)*.

From a comparative standpoint with the top-performing states like Kerala and Tamil Nadu in the Remaining States – Group A, and Odisha in Group B, J&K's achievements still hold considerable weight. Kerala, long recognized for its administrative efficiency and digital literacy, ranked highest among the larger states in overall compliance. Tamil Nadu and Odisha also displayed high scores, particularly in services portal performance and sectoral spread of e-services. However, unlike these states, J&K's performance gains further significance considering its historical socio-political challenges, terrain complexities, and relatively lower levels of digital penetration. The near 90% compliance in assessment parameters for J&K aligns it with these top-performing states, indicating that infrastructural and political constraints can be mitigated with structured digital governance models. J\&K's performance mirrors a paradigm shift, wherein previously underserved or isolated regions are achieving digital parity, thereby contributing to reducing governance disparities across the federal landscape *(ibid)*.

J&K's top ranking in the Services Portals category is especially notable as it reflects efficiency in delivering sector-specific services such as those in education, social welfare, local governance, and environment. According to NeSDA 2021, the UT showed commendable performance across all six sectors evaluated, suggesting that the digital initiatives were not siloed but spread evenly across administrative domains. This sectoral breadth indicates a robust back-end integration and coordination across departments, supported by competent nodal officers and implementation teams. In contrast, some states, while strong in select areas, showed uneven performance across sectors. For instance, Andhra Pradesh and Goa improved their service portal compliance by 100% but did not figure among the top ranks, indicating that consistency across sectors is as important as targeted excellence. J&K's comprehensive performance in the services domain indicates a high degree of digital institutional maturity, which is crucial for ensuring long-term sustainability in public service delivery *(ibid)*.

However, despite its commendable performance in NeSDA 2021, J&K's digital governance trajectory must be understood in light of certain limitations and contextual realities. Unlike fully-fledged states, UTs like J&K operate under more centralized administrative mechanisms, often with greater direct oversight from the central government. While this may facilitate quicker implementation and resource mobilization, it may not always reflect the same degree of decentralized institutional autonomy found in states like Kerala or Tamil Nadu. Additionally, being a first-time entrant in the NeSDA evaluation, J&K's performance should be monitored over successive cycles to determine consistency and institutional robustness. As more citizens engage with digital platforms and demand for e-services grows, the real test will be in maintaining service quality, ensuring inclusivity across remote regions, and integrating feedback loops. In this light, NeSDA 2021 should be seen not as a culmination but as an inaugural benchmark in J&K's evolving digital governance journey.

3.13 Challenges Associated with e-governance in J&K

Despite Jammu and Kashmir's strong performance in the NeSDA 2021 assessment, the region continues to grapple with several underlying challenges that may affect the sustainability of its e-Governance initiatives. These challenges, outlined in the given section, fall into categories such as infrastructural limitations, administrative hurdles, socio-political constraints, and gaps in digital literacy.

- Different Language: The people of India come from a variety of cultural and religious backgrounds. Individuals from various states speak various languages. Since e-government applications are developed in English, implementing e-government initiatives is extremely challenging given the diversity of people in the language context. It's also possible that most people don't understand English, because of this, the government finds it difficult to create multilingual e-Government apps that will be used across the country in a language that the users of that language will find acceptable *(Mittal and Kaur, 2013)*.

- Application recognition: Another significant obstacle is getting citizens to recognise the e-Government services. Encouraging all citizens to be fully aware of and trusting of the

services provided by e-government is a challenge, thus citizens must be prepared to accept these services *(ibid)*.

- Confidence in Technology: The usage of e-Governance to execute public administration activities necessitates user comfort and confidence in the technology. Additionally, the person interacting with the technology needs to have faith in it. To ensure that people can trust the technology they are given, even the government should take the necessary precautions. The government must strike a compromise between the burden that thorough inspections can have on those who are trustworthy and making sure that a system stops fraudulent transactions *(ibid)*.

- Geographical issues: Corporate networks are housed on dependable, regulated networks. Government networks must reach even the least desirable places to dwell. However, wiring up every community in the nation is expensive. Therefore, regardless of geographic challenges, e-Government systems must leverage wireless networks, just as the current cellular networks, to access applications in remote locations *(ibid)*.

- Poverty: For the impoverished who fight to make ends meet in developing nations like India, using the Internet is an expensive endeavour. Most developing nations lack the financial means to establish the phone lines that are required for internet or email connectivity, which is another example of required infrastructure *(Dhillon et al., 2014)*.

- Impediments for Re-Engineering Process: The implementation of E-Government initiatives necessitates extensive administrative process restructuring, including redefining administrative procedures and formats. This process is hampered by resistance from practically all departments at all levels *(ibid)*.

- Lack of knowledge: The advantages of e-government and the steps necessary to carry out effective G-C, G-G, and G-B initiatives are not widely known *(ibid)*.

- Inequality: "disparities in access to public sector services between different groups of individuals, particularly between urban and rural areas, educated and uneducated people, and the wealthy and the impoverished" *(ibid)*.

- Digital Divide: The term "digital divide "refers to the gap between individuals, businesses, and communities that have access to information technology and those that do not". This divide is influenced by social, economic, infrastructural, and

ethnolinguistic factors. Economic disadvantage is "closely linked to limited access to information technology resources". For instance, individuals living below the poverty line often cannot afford computers, which are essential for accessing e-government and other online services. Bridging the digital divide is crucial for wider adoption of e-government services in the public sector. It is important to note that the digital divide is not solely an economic issue; lack of awareness among people also contributes significantly to this challenge *(Bala and Verma, 2018)*.

- Cost: Cost is "one of the most significant barriers to implementing e-governance, particularly in developing countries like India", where a large portion of the population lives in poverty. Additionally, political leaders and elected officials often show limited interest in prioritizing e-governance initiatives *(ibid)*.

- Privacy and Security: "In e-government systems, stakeholders typically have three levels of access: no access, limited access, or full access to web services". However, when sensitive personal data is involved, establishing a security access policy becomes more complex and requires careful legal consideration. Effective measures must be implemented to safeguard sensitive personal data during the rollout of e-government initiatives. Clear security protocols and guidelines are essential to prevent misuse of sensitive information, such as medical records and income details *(ibid)*.

- Accessibility in Rural Areas: While many urban residents in Jammu and Kashmir can independently submit online forms and applications, "a significant portion of the rural population still depends on Common Service Centres (CSCs) to access government e-services". These centers "play a vital role in delivering digital services to remote and rural areas" *(Malik, I. A., 2023)*.

3.14 Critical Assessment of e-Governance in Jammu and Kashmir

The Government of Jammu and Kashmir (J&K) has made notable strides in e-governance by establishing the Jammu and Kashmir E-Governance Agency (JaKeGA) in 2009 *(Maram & Koundal, 2013)*. JaKeGA, operating under the Societies Registration Act, was designed to streamline IT projects and implement the National E-Governance Action Plan

(NeGP). The state's vision of SMART governance (Simple, Moral, Accountable, Responsive, and Transparent) aligns with national objectives, focusing on service delivery, rural empowerment, and employment generation (www.jkeg.org). Initiatives like Khidmat Centres (Common Service Centres/CSCs) have been introduced to bridge the digital divide, with 977 centres operational as of 2018 *(Naqshbandi & Fazili, 2018)*. However, despite these efforts, J&K lags behind other Indian states in large-scale e-governance integration, primarily due to infrastructural and socio-political challenges. While JaKeGA's framework is robust, its implementation remains fragmented, with limited interdepartmental coordination.

J&K has prioritized sectors with high citizen interaction, such as land records, police services (e-FIR), social welfare schemes, and municipal services *(Maram & Koundal, 2013)*. The e-Public Distribution System (e-PDS) and digital land records aim to reduce corruption and enhance transparency. Additionally, m-governance applications like JK Bank mPay and Kashmir Train Timing have improved accessibility *(Dar & Sakthivel, 2021)*. The Good Governance Index (GGI) highlights progress in service delivery, yet disparities persist between urban and rural areas *(Negi, 2022)*. A significant milestone was achieved in 2023 when J&K became the first Union Territory to digitize 400+ public services via platforms like DigiLocker and e-UNNAT *(Economic Times, 2023)*. Despite these advancements, backend digitization remains incomplete, leading to inefficiencies in real-time service delivery. The over-reliance on private partnerships for IT infrastructure also raises sustainability concerns.

The state faces multifaceted barriers to e-governance adoption. Low literacy rates (especially digital literacy) hinder accessibility, as most platforms are English-dominant *(Zargar et al., 2017)*. Connectivity issues, exacerbated by harsh winters and geographical remoteness, disrupt services in rural Kashmir *(Naqshbandi & Fazili, 2018)*. Power outages and inadequate broadband penetration further cripple digital infrastructure. Additionally, bureaucratic resistance and a lack of training among government employees slow down digitization efforts *(Maram & Koundal, 2013)*. Cybersecurity threats and data privacy concerns deter citizens from using online services, particularly for financial transactions *(Dar & Sakthivel, 2021)*. The digital divide is stark, with urban centres like Jammu and Srinagar benefiting disproportionately compared to conflict-prone regions like Kulgam.

The volatile security situation in J&K complicates e-governance rollout, with frequent internet shutdowns disrupting services *(Zargar et al., 2017)*. Trust deficits between citizens and the government further reduce engagement with digital platforms. While Khidmat Centres were envisioned as one-stop service hubs, they have largely devolved into B2C (Business-to-Consumer) outlets due to the absence of backend G2C (Government-to-Citizen) integration *(Naqshbandi & Fazili, 2018)*. Political instability and shifting administrative priorities have also led to inconsistent funding and policy paralysis. The lack of vernacular interfaces excludes non-English speakers, while corruption persists in manual alternatives to online services. The state's low e-readiness ranking reflects systemic failures in leveraging ICT for governance *(Mittal & Kaur, 2013)*.

Therefore, in the above context, to strengthen e-governance, J&K must decentralize digitization efforts and adopt local language interfaces for wider accessibility. Investments in rural broadband and renewable energy can mitigate connectivity and power issues. Capacity-building programs for government staff and citizens are essential to improve digital literacy *(Batra, 2012)*. Strengthening cybersecurity frameworks and enacting robust data protection laws will enhance public trust *(Dar & Sakthivel, 2021)*. Expanding G2C services in Khidmat Centres and integrating them with Aadhaar-based authentication can streamline service delivery. Finally, conflict-sensitive policies ensuring uninterrupted internet access in volatile regions are critical. If these measures are implemented, J&K can transition from a laggard to a leader in inclusive and resilient e-governance.

3.15 Conclusion

The integration of e-governance tools in Jammu and Kashmir (J&K) represents a significant shift towards enhancing administrative efficiency and citizen engagement through digital means. Platforms like Jansugam.jk.gov.in and state.ras.gov.in exemplify this transition. Jansugam, part of the e-panchayat Mission Mode Project, leverages a Low Code–No Code (LCNC) architecture to facilitate seamless e-service delivery with minimal technical expertise required from users. This approach aligns with the broader goal of making government services more accessible and user-friendly. Similarly, the RAS platform, developed by the Ministry of

Electronics and IT, emphasizes the importance of feedback collection and role-based access control, thereby improving the quality of service delivery through detailed analytics and secure, scalable solutions. DigiLocker, another critical initiative under the "Digital India" campaign, enables the storage and verification of essential documents electronically, further streamlining administrative processes and reducing reliance on physical paperwork.

The impact of these e-governance initiatives in J&K has been profound. The state's adoption of the e-UNNAT portal, which consolidates over 1050 online services, marks a substantial leap from the mere 35 services available in 2019. This platform is part of the broader Digital J&K Programme, designed to enhance governance efficiency by integrating multiple services into a single, accessible portal. J&K's commitment to digital governance is also reflected in its efforts to replace outdated practices with modern, citizen-centric solutions like the Public Services Guarantee Act's auto-appeal system, which enforces timely service delivery and accountability. However, challenges remain, including language diversity, technology trust, and geographical barriers. Overcoming these hurdles is essential for ensuring that e-governance "benefits are equitably distributed and effectively meet the needs of all citizens, particularly in remote and underserved areas".

CHAPTER 4
IMPACT ANALYSIS OF e-UNNAT IN DISTRICT KULGAM

Chapter IV

Impact Analysis of e-UNNAT in District Kulgam

4.1 Introduction

The impact analysis of the e-UNNAT portal in District Kulgam provides a comprehensive examination of how the digital governance initiative is "reshaping service delivery and citizen engagement at the grassroots level". District Kulgam, known for its diverse socio-economic landscape, has become a critical site for assessing the effectiveness of e-governance tools implemented under the broader Digital J&K Programme. By focusing on three key tehsils—Kulgam, Devsar, and D.H. Pora—this analysis seeks to understand the tangible benefits and challenges of the e-UNNAT portal, which consolidates numerous online services into a unified, accessible platform. This initiative is part of a larger effort to enhance transparency, streamline administrative processes, and "improve public service delivery" in Jammu and Kashmir. The introduction of the e-UNNAT portal in District Kulgam represents a "significant milestone in the region's digital transformation journey". The portal's integration aims to simplify access to government services, promote efficiency, and foster greater citizen participation in governance. In this context, this chapter presents an exploration how the portal has impacted various aspects of local administration, including service accessibility, responsiveness, and user satisfaction. By analyzing field data collected from the three tehsils, the study will highlight the successes achieved and identify areas needing improvement, thus providing valuable insights for ongoing and future e-governance initiatives in the district.

4.2 Socio-Economic Profile of District Kulgam

District Kulgam, located in the Jammu and Kashmir region, has a predominantly rural population with agriculture as the main economic activity. The district is known for its fertile land, producing crops like rice, maize, and vegetables. The economy is also supported by handicrafts, tourism, and small-scale industries. The literacy rate is steadily improving, though

challenges like unemployment, limited infrastructure, and regional instability continue to affect its socio-economic development.

Image Chart 4.1: Map of District Kulgam
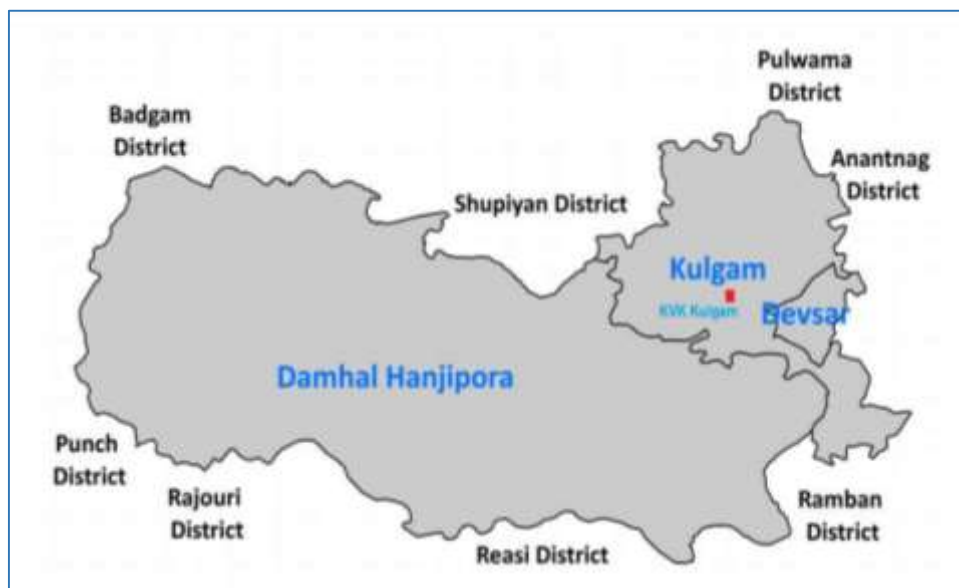
About District Kulgam

The name "Kulgam" is derived from two components: "Kul," which in Arabic signifies "Whole," and "Gam," meaning "teach righteousness." "Hazrat Amir Kabir Mir Syed Ali Hamdani (RA) and the mystic poetess Lal Ded (RA) were invited to Kashmir and Kulgam by Mir Syed Hussain Simnania (RA), whose disciples, including Sheikh Noor-ud-din Noorani (RA)", promoted a culture of unity and mutual respect, even during a period when dissent was considered heretical in many other Asian regions. As a result, Kulgam is regarded as a prominent center for wisdom and justice. On April 2, 2007, district Kulgam was created, along with seven other new districts in Jammu and Kashmir, by splitting it from the district of Anantnag to "improve administrative efficiency and bring governance closer to the people" for their development and well-being. The District Headquarters of Kulgam is located roughly 68 kilometres from Srinagar and 17 Kilometres from Anantnag district. Geographically, the district is flanked to the east and north by the districts of "Anantnag and Shopian", respectively, and

"lies between 330 and 15' North Latitudde and 740 and 35' East longitude". It is bordered to the south and west by the districts of Reasi, Ramban, and Rajouuri; nevertheless, the formidable Pirpanjal mountain range serves as a substantial physical barrier between them. The district is well-connected to distant regions through a reliable road network, which also links it to neighboring districts such as Shopian, Pulwama, Anantnag, and Ramban. Nallah Veshav, "the main left-bank tributary of the Jehlum River", flows through District Kulgam. It originates from the northern slope of the Pir Panjal range. Before merging with the Jehlum, the Veshu River divides into several channels, providing the district's large population with access to drinking water and irrigation for vast areas of agricultural land (https://kulgam.nic.in/about-district).

The district, known for its spiritual landmarks, is home to notable religious sites such as Sheikhul Alam (RA) at Gofbal Bogund Qaimoh, Mir Syed Hussain Simnania (RA) at Kulgam, "Noorshah Bagdadi at Kund, and Sheikh Noor-ud-din Wali (RA) at Chimmer". It also features popular tourist destinations like the "Aherbal Waterfall" on Veshu Nallah, situated to the west of Kulgam. The region is rich in scenic beauty, with lush green meadows stretching from "Kund" to "Ladigasan" (beyond Aherbal Clefts), and other attractions such as "Kung-Watan" and "Gurwatan" further ahead of Aherbal, along with "Charebal" and "Nandimarg" highland pastures. The district is also blessed with abundant natural freshwater resources, including renowned springs like Khee Nag (Khee Jogipora), Waseknag (Kund), and Kounsarnag (beyond Aherbal) *(ibid)*.

The district spans an area of 1,067 square kilometers and is divided into seven Tehsils: "Kulgam, Devsar, Damhal Hanjipora, Pahloo, Yaripora, Frisal, and Qoimoh". It also includes one Sub-Division, Noorabad, and twenty-one Nayabats: "Kulgam, Qaimoh, Mirhama, Yaripora, Devsar, Chowgam, D H Pora, Nagam, Pahloo, Lammer, Katrasoo, Ashmuji, Tangmarg, Chimmer, Chambgund, Kilam, Khull, Balsoo, KB Pora, Manzgam, and Nowbugh Kund". The district consists of eleven Community Development Blocks: "Kulgam, D H Pora, Pahloo, Devsar, Qaimoh (partially), Kund, Manzgam, D K Marg, Pombay, Frisal, and Behibag". The District has 231 settlements, of which 226 are inhabited and 5 are uninhabited, according to the 2011 Census. In addition, there are four municipal committees: Devsar, Frisal, Yaripora, and Kulgam. The government denotified the "Municipal Committees of Ashmuji, Mohammadpora, Qaimoh", and a few wards from certain MCs between 2012 and 2015. Kulgam and Noorabad,

two of the district's four assembly segments, are entirely under its jurisdiction, while H S Bugh and Devsar are partially under it *(ibid)*.

Economy of District Kulgam

District Kulgam is richly resourced by the natural world. Its rich freshwater supplies, lush terrain, and ideal agroclimatic conditions have made it possible to raise cattle and grow a wide range of fruits, vegetables, pulses, grains, and other crops. Recently, the district has come to view apiculture, mushroom cultivation, fish farming, and silk worm raising as profitable economic endeavours. The area is well-known for its distinctive handicrafts and handloom goods, including willow wicking, sozni works, chain stitch, gabba and namda making, carpet weaving, and crewel and embroidery. The consistent expansion of numerous economic sectors has caused a noticeable shift in the district's economy throughout time. Known as the "*Rice Bowl of Kashmir*," agriculture provides a direct or indirect source of income for over 80% of the district's population, making it the district's principal industry. It is an essential part of the primary industry. In the district, agriculture is the primary source of employment and means of subsistence *(https://kulgam.nic.in/economy)*.

A significant proportion of young people without jobs are working in the agriculture sector through apiculture and mushroom cultivation, two significant agricultural enterprises. In the commercial sector, apiculture production totaled 206.80 QTLs in 2016–17, while in the government sector, it was 2.09 QTLs. Likewise, during 2016–17, the district's private sector produced 11 QTLs of mushrooms, compared to 0.35 QTLs in the government sector. In the district, horticulture has grown in importance and contributes significantly to the district's GDP. In this area, the district has enormous potential. Recent years have seen a major shift in the agricultural pattern in favor of horticulture. As a result, the district contains about 25625 hectares of fruit-growing land. A wide range of fruits, including walnut, apricot, pear, and apple, are farmed there *(ibid)*.

Rearing silk worms, or sericulture, has historically been a significant endeavor. But as time went on, the activity suffered a severe shock as a result of the brutal felling of mulberry trees and the apathy of those responsible for raising them. As a result, it had a negative impact

on cocoon production. Nonetheless, initiatives are underway to bring this industry back to life by offering improved marketing opportunities and a range of incentives to the families involved. In addition, livestock is an essential component of the district's agriculture and plays a major role in its economic development. Eighty percent of the people living in the district work in agriculture as their primary occupation, with livestock rearing being their secondary occupation. A significant amount of the GDDP is contributed by the live-stock industry *(ibid)*.

The district is bounded by the mountains of Peer Panchaal in the south and southwest, as is widely known. Coniferous and deodar trees make up the deep, dense forests that envelop these peaks. The area is also known as "*Angler's paradise*" because to its abundant fisheries. In the district, fishing has grown to be a profitable sector. In streams like Veshow & Sonman, pisciculture is being established. A total of 66 tonnes of fish were documented as being taken in the District during 2016 and 2017. During the reference period, the sale of 23211.72 kg of trout fish in government-run raising plants at Kulgam, Chawalgam, and Tschancer generated revenue of Rs14.72 lacs, which was adequately contributed to the GDDP *(ibid)*.

Table 4.1: Census Statistics of District Kulgam

S. No.	District Census Highlights	
1	Total Geographical Area	1067 Sq. Km
2	Total Population	424483 Male: 217620 Female: 206863
3	Habitation	Rural: 391635 Urban: 32846
4	ST Population	26525
5	SC Population	21
6	No. of Households	73728
7	Sex Ratio	951
8	Child Sex Ratio	885

Source: Census 2011

The Census statistics of District Kulgam offer a detailed snapshot of its demographic and socio-economic landscape. Covering a geographical area of 1067 square kilometers, the district is home to a total population of 424,483 individuals. This population is relatively evenly split between genders, with 217,620 males and 206,863 females, resulting in a favorable sex ratio of 951 females per 1,000 males. The child sex ratio, however, stands at 885 females per 1,000 males, indicating a need for targeted interventions to address gender imbalances among the younger population. The majority of Kulgam's inhabitants reside in rural areas, with a significant 391,635 people living outside urban centers. In contrast, the urban population is relatively small, comprising 32,846 individuals. This rural dominance highlights the district's reliance on agrarian and traditional livelihoods and underscores the challenges associated with providing services and infrastructure in less accessible areas. The district also has a notable Scheduled Tribe (ST) population of 26,525, while the Scheduled Caste (SC) population is minimal, with only 21 individuals recorded. This demographic distribution reflects the diverse social fabric of the region, with a significant proportion of the population belonging to indigenous communities. Additionally, with a total of 73,728 households, the data provides insight into the average household size and living conditions, which are crucial for understanding the district's social and economic dynamics.

4.3 Governance/Administrative Structure of District Kulgam

District Kulgam lies in the "Indian union territory of Jammu and Kashmir". It is "located at a distance of 18 km towards south-west of Anantnag". The district is divided into 273 Revenue Villages, 7 Tehsils and 4 Muncipal Corporations. The district is administered under 5 Police Stations, namely- Kulgam, DH Pora, Devsar,Qazigund and Yaripora subordinated by six police posts namely – Qoimoh, Frisal, Mir Bazaar, Behibagh, Kund and Jawahar Tunnel. Kulgam lies in South Kashmir which hones the diversity in cultural terms and is also the home to vulnerable populations including tribal population. In this context, the role of governance and more particularly the role of e-UNNAT in public service delivery will be analyzed in Kulgam district.

e-UNNAT is the important step in the "digital journey of Jammu and Kashmir" at it connects with the core framework of '*Digital India*'. With its implementations, Jammu and Kashmir became the first union territory in India that makes an extensive use and implementation if digital services by government and people at large. The prime objective of the scheme is to make all government services available on a single platform in J&K. All the public services are being made available at this centralized portal so that people do not need to visit different portals for services. Moreover, it aims to bring transparency in the policy implementation and governance mechanism of J&K. in this background there is a set of benefits under e-UNNAT that defines its objectivity and orientation.

- Through this platform, the government services are being provided to people through a single centralized platform.
- Through single registration mechanism on e-UNNAT platform, citizens will get access to all the government services.
- The service delivery under e-UNNAT will help people to save money and time.
- Furthermore, the initiative will bring transparency in the governance operations.
- There service delivery mechanism under e-UNNAT is pro-active as it is directly monitored by Chief Secretary of the state.

In order to delve deep into the role of e-UNNAT in governance, it becomes important to explore the governance structure of District Kulgam. In this context, the governance mechanism of district Kulgam is presented below:

Administrative Set-Up of District Kulgam

The administrative setup of District Kulgam reflects a well-structured system designed to manage its diverse geographical and demographic characteristics. The district is divided into a single administrative sub-division, which serves as the top-tier unit for governance and coordination. Under this sub-division, Kulgam is further segmented into seven tehsils, each functioning as a revenue and administrative unit responsible for local governance and service delivery. These tehsils are instrumental in managing the district's day-to-day administrative functions and ensuring that governmental services reach the grassroots level. At the next level

of administrative organization, Kulgam comprises 11 Community Development (CD) blocks, which are crucial for implementing rural development programs and facilitating community-based initiatives. Each CD block oversees several Nayabat Circles, totaling 21 regular circles plus one additional circle, which play a role in managing land revenue and local administrative matters. The Patwar Halqa system, consisting of 167 units, represents the smallest administrative division and is essential for land record management and revenue collection. Additionally, the district includes 273 revenue villages, reflecting the significant rural population and the extent of land management responsibilities. The law enforcement framework in Kulgam is supported by five police stations and five police posts, ensuring effective policing and security across the district. This detailed administrative structure allows for efficient governance, tailored to the district's unique needs and challenges *(https://kulgam.nic.in/administrative-setup/)*.

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Administrative Set-Up of District Kulgam

↓

Sub Division = 1

Tehsil = 7

CD Block = 11

Nayabat Circle = 21+1

Patwar Halqa = 167

Revenue Villages = 273

Police Stations = 5

Police Posts = 5

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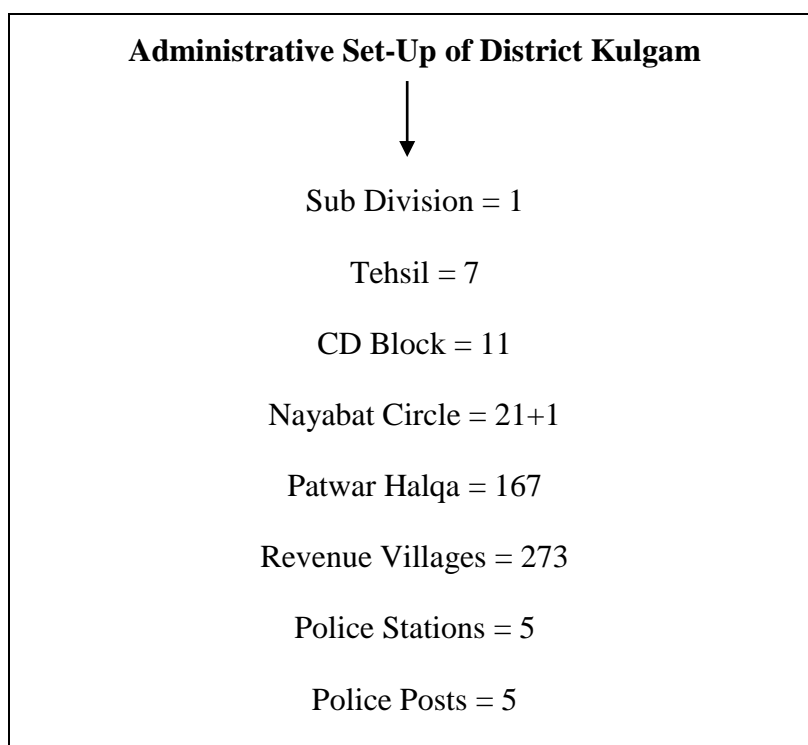
Source: *Administration of District Kulgam: Official Website*

At the district level, District Development Commissioner (DDC) is the head of Kulgam district. He supervises and coordinates the functions of other departments. DDC is accompanied by two Additional Deputy Commissioners (ADC's) who assist the DDC and manage the district

governance during his/her absence. Each department is headed by a district head with different nomenclatures such as: Chief Medical Officer (CMO) for health department, Chief Educational Officer (CEO) in education department, Chief Planning Officer (CPO) in planning department, Superintendent of Police (SP) in police department, District Social Welfare Officer in social welfare department and others. These departments are further decentralized for convenient purpose of administration. These departments provide government services to public in their own approach and strategy. Therefore, the idea of centralized public delivery service mechanism such as e-UNNAT is gaining prominence as it acts as a central repository for public to avail all public services in the real time. Therefore, it becomes vital to analyze e-Governance and more particularly e-UNNAT in context to J&K from review perspective *(ibid)*.

4.4 Data Interpretation and Analysis

This section presents the data interpretation and analysis based on responses from 300 individuals in Kulgam district regarding the e-UNNAT program. The survey aimed to assess the awareness, usage, and impact of the e-UNNAT initiative on local governance and public service delivery. The analysis explores factors such as digital literacy, accessibility to technology, and overall satisfaction with the program. The findings offer valuable insights into the strengths, challenges, and potential improvements for enhancing the effectiveness of e-UNNAT in promoting efficient, transparent governance in the region.

Section A: Socio-Demographic Profile of Respondents

The present section of the research study focuses on providing a comprehensive socio-demographic profile of the respondents involved in the study. This includes details such as age, gender distribution, educational qualifications, occupational backgrounds, and geographical locations of the respondents. By profiling these socio-demographic factors, the study aims to establish a foundational understanding of the sample group, enabling deeper insights into how these variables may affect the accessibility, availability and use of e-governance. This section serves as a crucial backdrop for contextualizing subsequent findings and interpretations derived from the study's data analysis and discussions.

Table 4.2: Gender of Respondents

S. No.	Gender of Respondents	Frequency	Percentage
1	Male	284	94.7
2	Female	15	5.3
3	Any Other	00	00
	Total	**300**	**100%**

Chart 4.2: Gender of Respondents
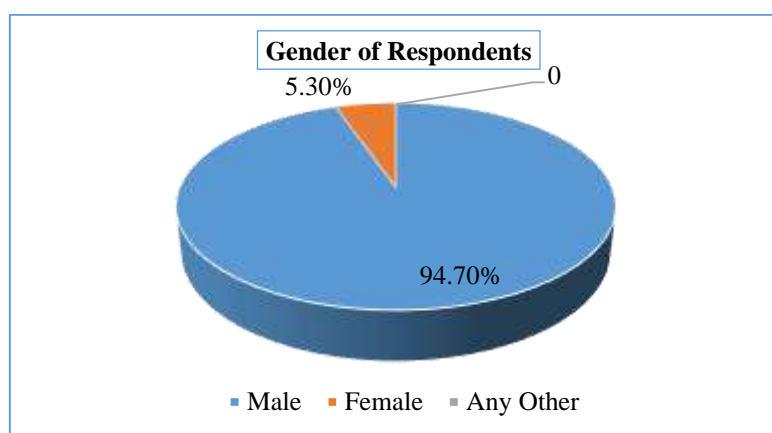
The majority of respondents are male, comprising 94.7% of the total sample, whereas females constitute only 5.3%. There are no respondents identifying as "Any Other." This analysis provides a clear overview of the gender distribution among respondents regarding e-UNNAT in Kulgam district, enabling insights into the demographic composition of the survey sample.

Table 4.3: Age of Respondents

S. No.	Age of Respondents	Frequency	Percentage
1	18-30 Years	182	60.7
2	31-40	67	22.3
3	41-50	42	14.0
4	>50 Years	9	3.0
	Total	**300**	**100%**

Chart 4.3: Age of Respondents
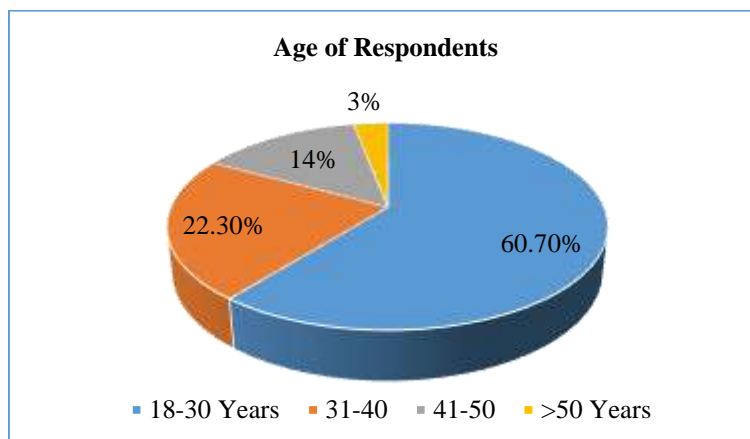
The data analysis focuses on the age distribution of respondents participating in the study. The majority of respondents fall within the 18-30 years' age bracket, comprising 60.7% of the sample. Those aged 31-40 years constitute 22.3%, while respondents aged 41-50 years and those over 50 years represent 14.0% and 3.0% of the sample, respectively. This distribution highlights a predominance of younger adults in the study cohort. Understanding these age demographics is crucial for interpreting how different age groups perceive and engage with the subject matter under investigation, providing insights into generational perspectives and potential implications for policy or program interventions aimed at specific age cohorts.

Table 4.4: Education Level of Respondents

S. No.	Education Level of Respondents	Frequency	Percentage
1	Illiterate	33	11.0
2	10th	27	9.0
3	12th	48	16.0
4	Graduation/Above	192	64.0
	Total	**300**	**100%**

Chart 4.4: Education Level of Respondents
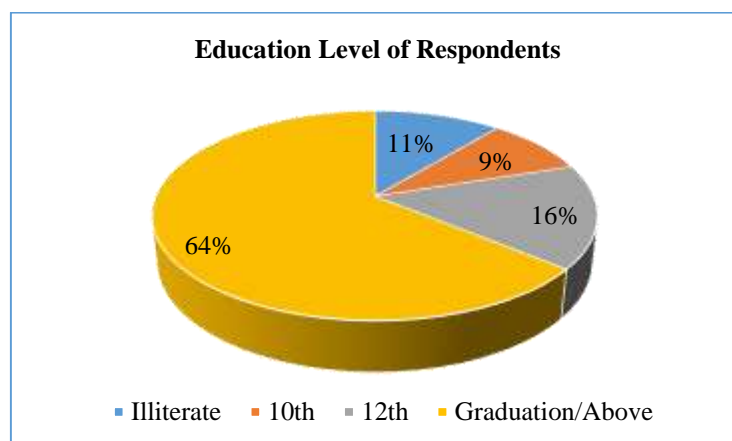
The data analysis focuses on the educational attainment of respondents participating in the study. The majority of respondents, constituting 64.0% of the sample, have attained a Graduation level of education or above. This group represents the highest educational bracket in the survey. Meanwhile, 16.0% of respondents have completed their education up to the 12th grade, while 9.0% have completed education up to the 10th grade. A smaller proportion, 11.0%, are categorized as Illiterate. This distribution underscores a predominance of respondents with higher educational qualifications, reflecting a potentially educated and informed sample base. Understanding these educational profiles is crucial for interpreting how different levels of education may influence perceptions, behaviors, and responses related to the research objectives, thereby providing insights into the potential impact of educational background on study outcomes.

Table 4.5: Habitation of Respondents

S. No.	Habitation of Respondents	Frequency	Percentage
1	Rural	200 (Tehsil Devsar and D H Pora)	66.66
2	Semi-Urban	00	00
3	Urban	100 (Tehsil Kulgam)	33.33
	Total	**300**	**100%**

Chart 4.5: Habitation of Respondents
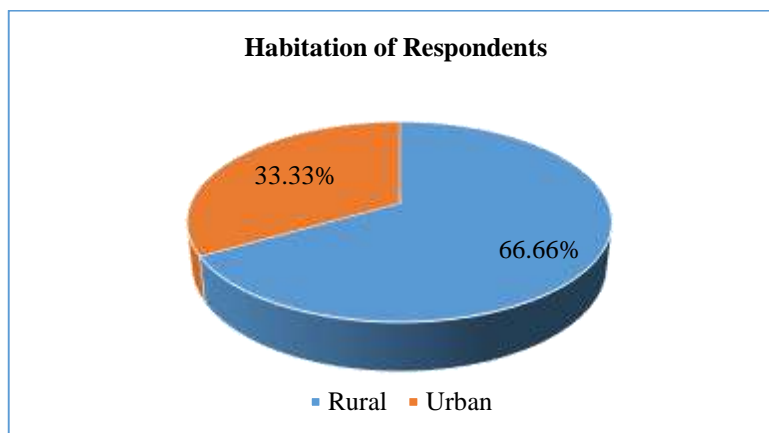
The data on the habitation of respondents reveals that a significant majority, 66.66%, of the respondents come from rural areas (Tehsil Devsar and D H Pora), while 33.33% are from urban areas (Tehsil Kulgam). Notably, there are no respondents from semi-urban areas, indicating a clear absence of this demographic in the sample. This distribution highlights a predominance of rural and urban residents, with a complete lack of representation from semi-urban locales, which could suggest a need for further investigation into why this category is missing and whether it impacts the generalizability of the survey findings.

Table 4.6: Occupation of Respondents

S. No.	Occupation of Respondents	Frequency: Tehsil Kulgam+Devsar+DH Pora	Percentage
1	Farmer	75: 13+24+38	25
2	Employee	75: 31+24+20	25
3	Business	75: 27+25+23	25
4	Student	75: 29+27+19	25
Total		**300**	**100%**

Chart 4.6: Occupation of Respondents
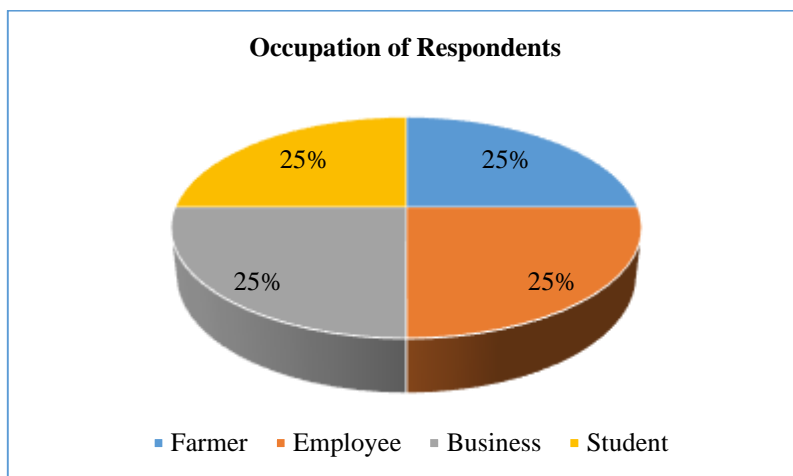
The occupation data of respondents shows a balanced distribution across four categories, with each occupation—farmer, employee, business person, and student—representing 25% of the total sample. This equal distribution indicates a diverse respondent pool where no single occupation dominates, providing a broad perspective on the various professional and educational backgrounds of the participants. This balance suggests that the findings of the survey are likely to be well-rounded and inclusive of different occupational viewpoints.

Table 4.7: Marital Status of Respondents

S. No.	Marital Status of Respondents	Frequency: Tehsil Kulgam+Devsar+DH Pora	Percentage
1	Married	142: 32+54+56	47.3
2	Unmarried	155: 68+46+41	51.7
3	Divorce	00: 0+0+0	00
4	Widow	03: 0+0+3	01
Total		**300**	**100%**

Chart 4.7: Marital Status of Respondents

Marital Status of Respondents
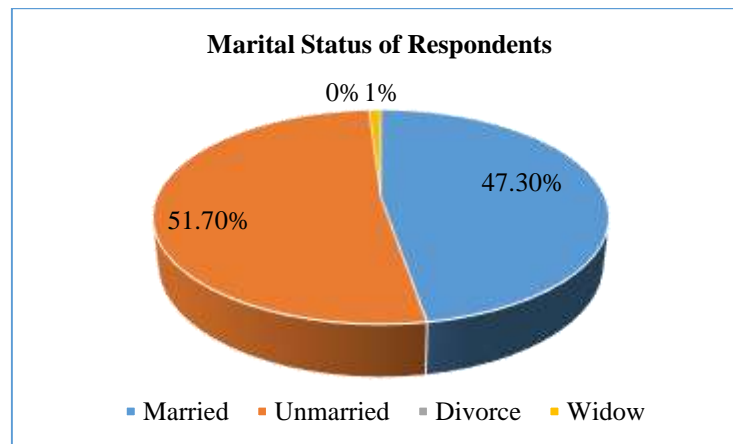
Based on the survey data, the marital status of respondents shows a predominantly even split between married and unmarried individuals. Specifically, 47.3% of respondents reported being married, while 51.7% identified as unmarried. A small percentage of respondents, 1%, identified as widowed, with no respondents indicating divorce. This distribution reflects a typical demographic profile where unmarried individuals slightly outnumber married individuals among the surveyed population. The absence of respondents identifying as divorced suggests a homogeneous marital status distribution within the sample. Understanding these demographics can provide insights into how marital status might influence perceptions, behaviors, and preferences related to various topics covered in the survey, including attitudes towards digital platforms like e-UNNAT and other socio-economic factors.

Section B: Accessibility, Service Delivery and Challenges Associated with e-UNNAT

The section evaluates how effectively the e-UNNAT platform is accessible to respondents. This section highlights the platform's user-centric design, which ensures that it is easily navigable and compatible with various devices and internet speeds. The platform's accessibility features, including clear instructions and intuitive interfaces, facilitate a seamless user experience for participants from diverse geographic and socio-economic backgrounds. By catering to a broad audience, e-UNNAT maximizes user engagement and participation, thereby enhancing the quality and reliability of the data collected.

Table 4.8: Awareness Regarding e-UNNAT in J&K

S. No.	Awareness Regarding e-UNNAT in J&K	Frequency: Tehsil Kulgam+Devsar+DH Pora	Percentage
1	Yes	134: 58+43+33	44.7
2	No	166: 42+57_67	55.3
3	Can't Say	00: 0+0+0	00
Total		**300**	**100%**

Chart 4.8: Awareness Regarding e-UNNAT in J&K
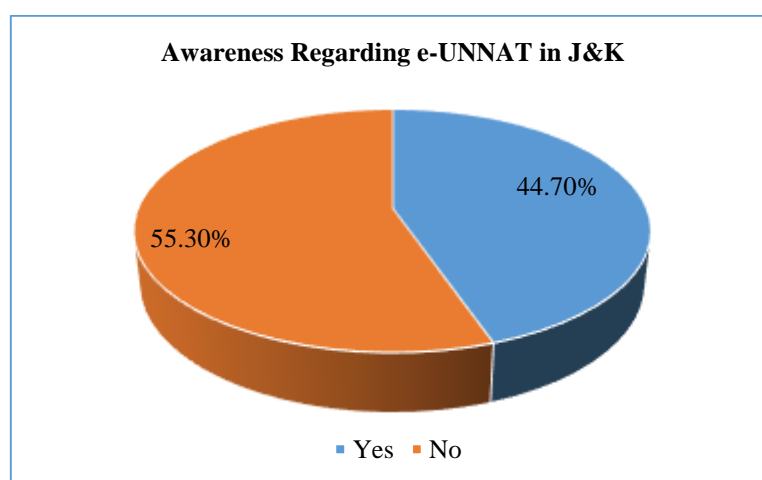
The data on awareness regarding e-UNNAT in Jammu & Kashmir indicates that 55.3% of respondents are not aware of the platform, while 44.7% have some knowledge of it. The absence of respondents in the "Can't Say" category suggests a clear-cut division between those who are aware and those who are not. This distribution highlights a significant gap in awareness, with a majority of the population unfamiliar with e-UNNAT. Addressing this gap through targeted outreach and education could be crucial for increasing engagement and improving the platform's impact in the region.

Table 4.9: If No: Specify the Reason

S. No.	If No: Specify the Reason
1	Educational Backwardness
2	Lack of Awareness
3	Limited Advertisement
4	Digital Divide
Total	

The data highlights several key barriers to exclusive accessibility of e-UNNAT, including educational backwardness, lack of awareness, limited government advertisement, and the digital divide. These factors hinder the effective utilization of e-UNNAT by marginalized communities. Educational backwardness limits individuals' ability to engage with digital platforms, while a lack of awareness prevents widespread adoption. Limited advertisement by the government fails to reach all target audiences, and the digital divide exacerbates inequality in access to online services. Additionally, economic constraints, insufficient infrastructure in rural areas, and a lack of digital literacy also contribute to these challenges. Addressing these gaps is crucial to ensure equitable access to public services and bridge the digital divide.

Table 4.10: If Yes: How did you came to know about e-UNNAT

S. No.	How did you came to know about e-UNNAT	Frequency	Percentage
1	News Outlet	19	14.2
2	Social Media	51	38.1
3	Friends	42	31.3
4	Relatives	22	16.4
Total		**134**	**100%**

Chart 4.9: If Yes: How did you came to know about e-UNNAT

How did you came to know about e-UNNAT

14.20%

38.10%

16.40%

31.30%

■ News Outlet   ■ Social Media   ■ Friends   ■ Relatives
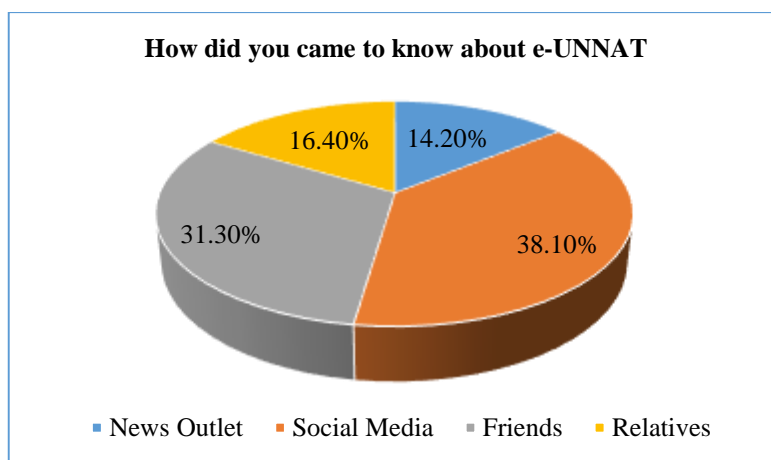
The data analysis reveals that the primary sources through which individuals learned about e-UNNAT were social media and friends, accounting for 38.1% and 31.3% of responses, respectively. News outlets and relatives contributed to smaller proportions, with 14.2% and 16.4%, respectively. This suggests that social media and personal connections play a more significant role in disseminating information about e-UNNAT compared to traditional news sources and family networks.

Table 4.11: Do you know how to access the e-UNNAT portal?

S. No.	Do you know how to access the e-UNNAT portal?	Frequency	Percentage
1	Yes	75	56.0
2	No	54	40.3
3	Can't Say	5	3.7
	Total	**134**	**100%**

Chart 4.10: Do you know how to access the e-UNNAT portal?

Do you know how to access the e-UNNAT portal?

3.70%

40.30%

56%

■ Yes ■ No ■ Can't Say
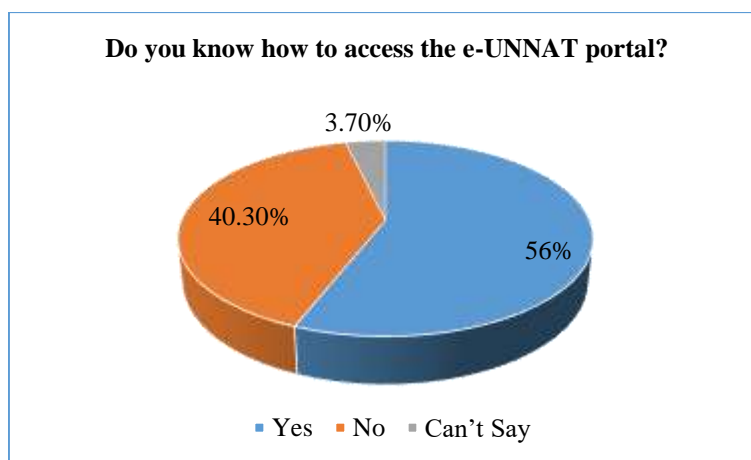
The data indicates that a majority of respondents, 56.0%, are aware of how to access the e-UNNAT portal. Conversely, 40.3% do not know how to access it, and a small minority, 3.7%, are unsure. This suggests that while over half of the individuals are informed about accessing the portal, a significant portion still lacks this knowledge, highlighting a potential area for improved guidance or communication.

Table 4.12: Have you availed any service/s through e-UNNAT portal?

S. No.	Have you availed any service/s through e-UNNAT portal?	Frequency	Percentage
1	Yes	117	87.30
2	No	17	12.70
3	Can't Say	00	00
Total		**134**	**100%**

Chart 4.11: Have you availed any service/s through e-UNNAT portal?
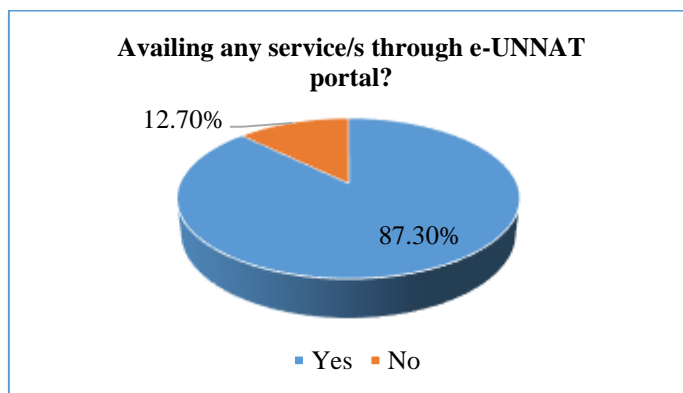
The data reveals that out of 134 respondents surveyed about their usage of the e-UNNAT portal, a substantial majority of 87.30% have availed services through it, amounting to 117 individuals. Conversely, a minority of 12.70%, which equates to 17 respondents, reported not having used the portal for any services. Notably, none of the respondents chose the option "Can't Say," indicating a definitive response from all participants. This distribution underscores a high level of adoption and engagement with the e-UNNAT portal among the surveyed population, suggesting positive reception and utilization of its offered services. Such findings can be crucial for stakeholders and policymakers seeking to gauge the effectiveness and reach of digital service platforms like e-UNNAT in facilitating access to services among users.

Table 4.13: If Yes: Specify the Service from the checklist

S. No.	If Yes: Specify the Service from the checklist
1	Agriculture Certificate by Revenue Dept.
2	SC/ST/OBC Certificate by Revenue Dept.
3	Income Certificate by Revenue Dept.
4	Marriage Assistance Scheme by Social & Welfare Dept.
5	Job Card Under MGNREGA by PRI
6	Registration of Unemployed Youth by Labour Dept.
7	Birth and Death Certificate by H&UD

According to the given data, majority of the respondents have availed birth and death registration certificates from Housing and Urban Development (H&UD) followed by income certificates from the revenue department. Some respondents have also applied for MGNREGA job cards from Panchayati Raj Institution (PRI) body and registration of unemployment status by labour department.

Table 4.14: How did you access the service/s at e-UNNAT portal?

S. No.	How did you access the service/s at e-UNNAT portal?	Frequency	Percentage
1	Mobile	08	07
2	PC/Laptop	03	2.5
3	CSC/Khidmat Centre	103	88
4	Any Other	03	2.5
Total			**100%**

Chart 4.12: How did you access the service/s at e-UNNAT portal?
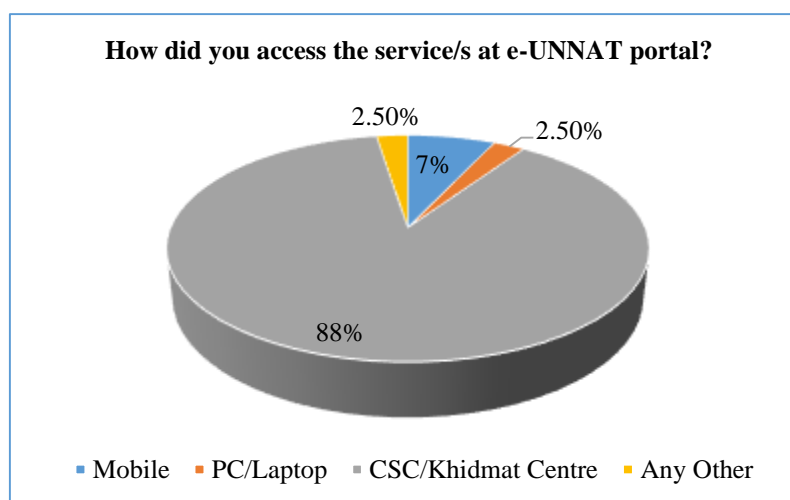
From the data provided, it is evident that the majority of respondents, accounting for 88% of the total, accessed services on the e-UNNAT portal through CSC/Khidmat Centres. This method was chosen by 103 respondents, highlighting the significant role of these centers in facilitating

access to digital services for the surveyed population. A smaller proportion, 7%, accessed the portal via mobile devices, totaling 8 respondents. Additionally, 2.5% each accessed the services using a PC/Laptop or through other unspecified means, with 3 respondents in each category. This distribution underscores the diverse ways in which users interact with the e-UNNAT portal, with a clear preference towards utilizing CSC/Khidmat Centres for accessing digital services, potentially due to their accessibility and support infrastructure in assisting users with online transactions and services.

Table 4.15: e-UNNAT is effective in service delivery and saves your time and cost?

S. No.	e-UNNAT is effective in service delivery and saves your time and cost?	Frequency	Percentage
1	Strongly Disagree	09	07
2	Disagree	11	08
3	Neutral	28	21
4	Agree	52	39
5	Strongly Agree	34	25
Total		**134**	**100%**

Chart 4.13: e-UNNAT is effective in service delivery and saves your time and cost?
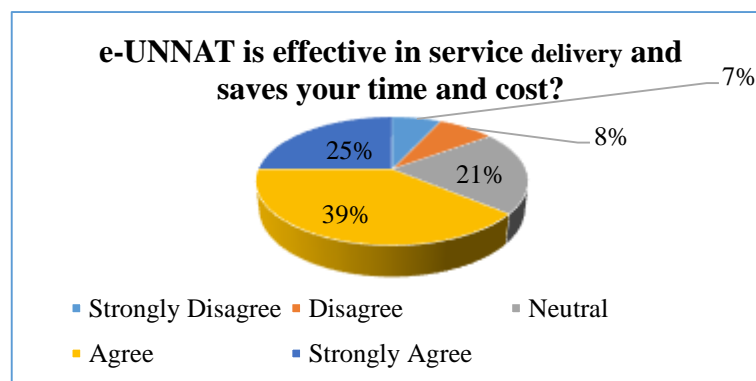
The survey results suggest varied opinions regarding the effectiveness of e-UNNAT in service delivery and its impact on saving time and costs. A notable 39% of respondents indicated agreement with the statement, while 25% strongly agreed, collectively reflecting positive perceptions among 64% of the surveyed population. On the contrary, 15% disagreed (8% disagreed and 7% strongly disagreed), and 21% remained neutral. This distribution indicates a mixed reception, with a significant portion acknowledging the platform's efficacy in service delivery and efficiency in time and cost savings, while others express reservations or neutrality. These insights provide valuable feedback for stakeholders aiming to enhance the platform's functionality and user experience, potentially focusing on addressing concerns and further highlighting its benefits to users.

Table 4.16: e-UNNAT initiative has made government services more accessible to the public in Kulgam district?

S. No.	e-UNNAT initiative has made government services more accessible to the public in Kulgam district?	Frequency	Percentage
1	Strongly Disagree	03	2.5
2	Disagree	03	2.5
3	Neutral	29	21
4	Agree	63	47
5	Strongly Agree	36	27
Total		**134**	**100%**

Chart 4.14: e-UNNAT initiative has made government services more accessible to the public in Kulgam district?
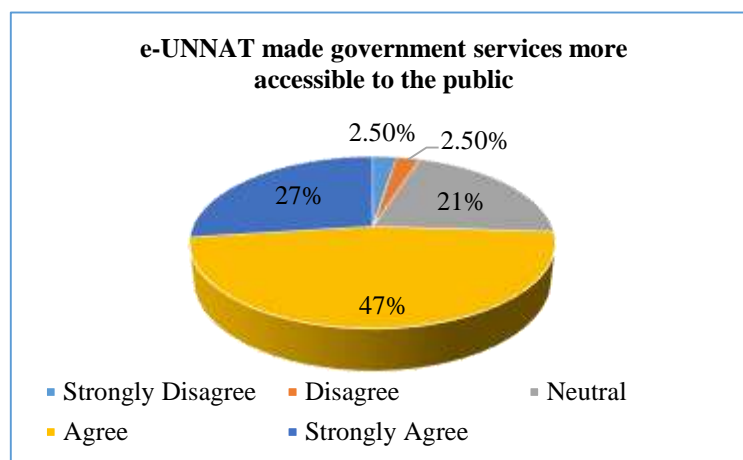
Based on the survey data, perceptions regarding the e-UNNAT initiative making government services more accessible in Kulgam district are predominantly positive. A combined 74% of respondents either agree (47%) or strongly agree (27%) that e-UNNAT has enhanced accessibility to government services. This positive sentiment is contrasted by a smaller segment of respondents, with 2.5% each strongly disagreeing or disagreeing with the statement. Additionally, 21% of respondents remain neutral on the matter. The data indicates a general acknowledgment among a majority of respondents that e-UNNAT has played a significant role in improving the accessibility of government services in Kulgam district. Such insights can guide further improvements and initiatives aimed at enhancing digital service delivery and accessibility across similar regions, potentially addressing concerns of those who remain neutral or express disagreement.

Table 4.17: e-UNNAT has improved transparency in governance mechanism in Kulgam district?

S. No.	e-UNNAT has improved transparency in governance mechanism in Kulgam district?	Frequency	Percentage
1	Strongly Disagree	01	01
2	Disagree	03	2.5
3	Neutral	63	47
4	Agree	32	24
5	Strongly Agree	35	25.5
	Total	**134**	**100%**

Chart 4.15: e-UNNAT has improved transparency in governance mechanism in Kulgam district?

e-UNNAT improved transparency in governance

1% — 2.50%
25.50%
47%
24%

■ Strongly Disagree   ■ Disagree   ■ Neutral
■ Agree   ■ Strongly Agree
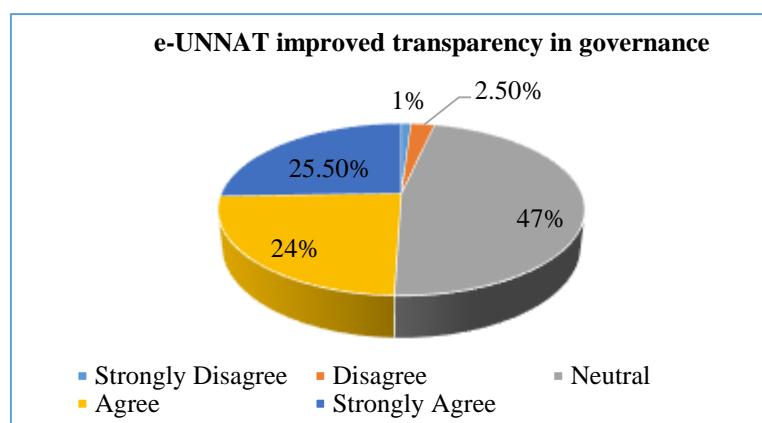
According to the survey results, opinions regarding whether e-UNNAT has improved transparency in the governance mechanism in Kulgam district are varied. A significant portion of respondents, comprising 50.5% (25.5% strongly agree and 25% agree), perceive that e-UNNAT has indeed enhanced transparency. On the other hand, 3.5% of respondents disagree (2.5% disagree and 1% strongly disagree), and 47% remain neutral on the matter. The data

suggests a notable positive perception among those who agree or strongly agree that e-UNNAT has contributed to greater transparency in governance. However, a substantial portion of respondents adopting a neutral stance indicates that there may be room for improvement in communication or awareness regarding the transparency benefits brought about by e-UNNAT. Addressing these perceptions could further strengthen trust and engagement with the governance mechanisms facilitated through the initiative in Kulgam district.

Table 4.18: e-UNNAT facilitates faster and more efficient delivery of public services?

S. No.	e-UNNAT facilitates faster and more efficient delivery of public services?	Frequency	Percentage
1	Strongly Disagree	11	8
2	Disagree	17	13
3	Neutral	22	16
4	Agree	48	36
5	Strongly Agree	36	27
Total		**134**	**100%**

Chart 4.16: e-UNNAT facilitates faster and more efficient delivery of public services?
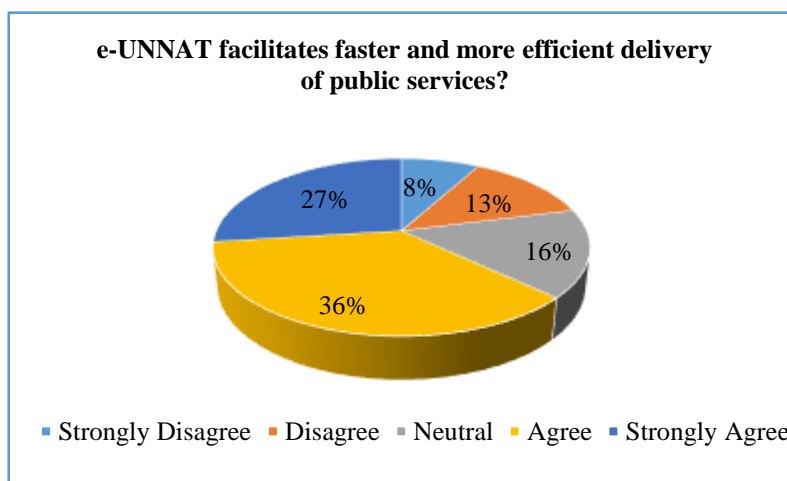
Based on the survey data, opinions are divided regarding whether e-UNNAT facilitates faster and more efficient delivery of public services. A combined 63% of respondents either agree (36%) or strongly agree (27%) that e-UNNAT contributes to faster and more efficient service delivery. Conversely, 21% of respondents either disagree (13%) or strongly disagree (8%) with this statement. Additionally, 16% of respondents remain neutral on the matter. The data suggests a positive perception among a significant portion of respondents that e-UNNAT improves the speed and efficiency of public service delivery. However, the presence of respondents who disagree or are neutral indicates potential areas for improvement in enhancing service delivery effectiveness through the initiative. Addressing these perceptions could further bolster confidence in e-UNNAT's role in facilitating efficient public service delivery.

Table 4.19: e-UNNAT has contributed to economic empowerment in the District?

S. No.	e-UNNAT has contributed to economic empowerment in the District?	Frequency	Percentage
1	Strongly Disagree	03	2
2	Disagree	07	5
3	Neutral	39	29
4	Agree	54	41
5	Strongly Agree	31	23
Total		**134**	**100%**

Chart 4.17: e-UNNAT has contributed to economic empowerment in the District?
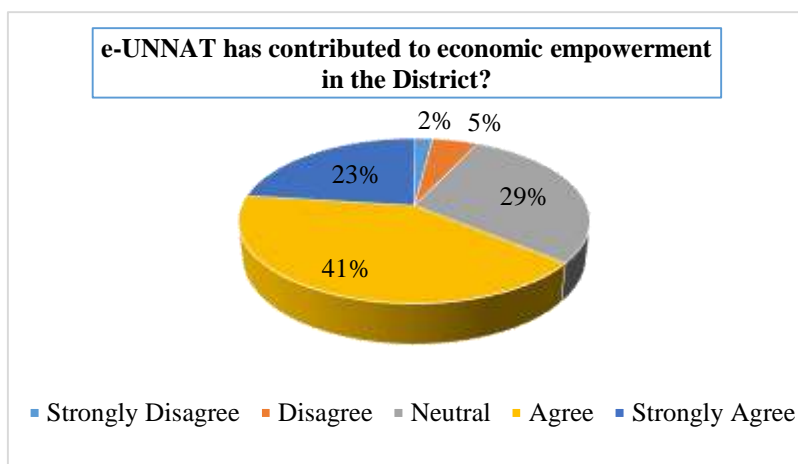
Based on the survey results, opinions are somewhat positive regarding whether e-UNNAT has contributed to economic empowerment in the district. A combined 64% of respondents either agree (41%) or strongly agree (23%) that e-UNNAT has made a positive contribution in this regard. On the other hand, a smaller proportion of respondents, totaling 7% (5% disagree and 2% strongly disagree), hold negative views on this matter. Additionally, 29% of respondents remain neutral. The data indicates a significant perception among a majority of respondents that e-UNNAT has indeed played a role in economic empowerment within the district. However, the presence of neutral responses suggests that while there is recognition of its potential impact, further efforts may be needed to clearly articulate and measure the economic benefits brought about by the initiative. This insight can guide future strategies to enhance the economic outcomes and benefits associated with e-UNNAT in the district.

Table 4.20: How would you rate the effectiveness of ICT adoption in e-UNNAT in the Kulgam District?

S. No.	How would you rate the effectiveness of ICT adoption in e-UNNAT in the Kulgam District?	Frequency	Percentage
1	Ineffective	14	10
2	Partially Ineffective	17	13
3	Neutral	47	35
4	Effective	37	28
5	Very Effective	19	14
	Total	**134**	**100%**

Chart 4.18: How would you rate the effectiveness of ICT adoption in e-UNNAT in the Kulgam District?
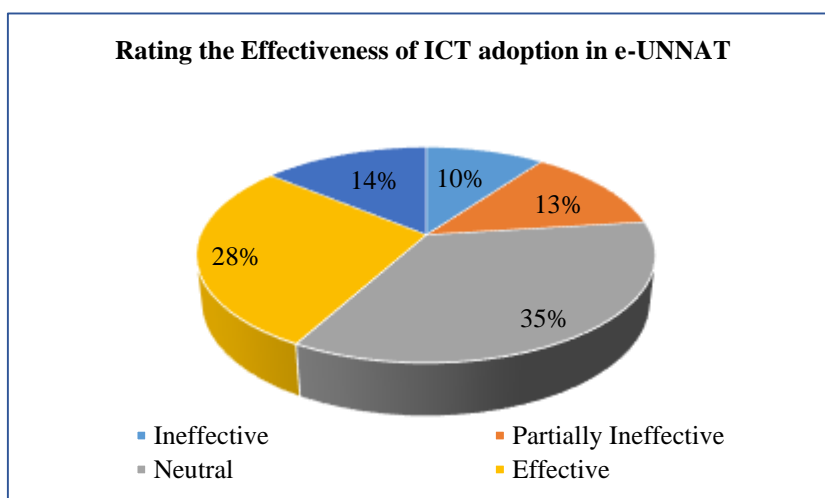
According to the survey data, opinions on the effectiveness of ICT adoption in e-UNNAT in Kulgam District are varied. A combined 42% of respondents either rate it as effective (28%) or very effective (14%), indicating a positive perception of ICT adoption in the initiative.

Conversely, 23% of respondents perceive it as partially ineffective (13%) or ineffective (10%). Additionally, 35% of respondents remain neutral on the effectiveness of ICT adoption in e-UNNAT. These results suggest a mixed reception regarding the effectiveness of ICT adoption in e-UNNAT. While a significant portion of respondents acknowledge its positive impact, there is also a notable segment that expresses reservations or neutrality. Addressing concerns and enhancing awareness about the benefits and improvements brought about by ICT adoption in e-UNNAT could potentially increase overall satisfaction and effectiveness perception among stakeholders and users in Kulgam District.

Table 4.21: e-UNNAT improved real time and cost-effective service delivery in the region?

S. No.	e-UNNAT improved real time and cost-effective service delivery in the region?	Frequency	Percentage
1	Not at all	13	10
2	Slightly	19	14
3	Moderately	46	34
4	Significantly	29	22
5	Very significantly	27	20
Total		**134**	**100%**

Chart 4.19: e-UNNAT improved real time and cost-effective service delivery in the region?

e-UNNAT improved real time and cost-effective service delivery

- Not at all 10%
- Slightly 14%
- Moderately 34%
- Significantly 22%
- Very significantly 20%
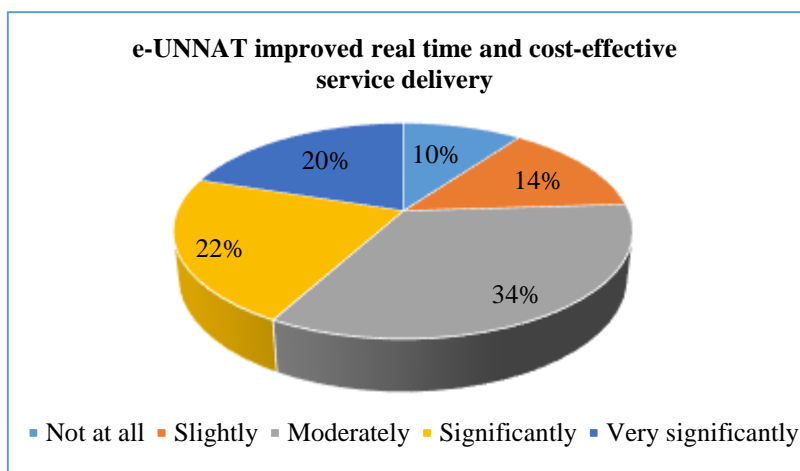
Based on the survey data, perceptions vary regarding whether e-UNNAT has improved real-time and cost-effective service delivery in the region. A significant proportion of respondents, totaling 42% (22% significantly and 20% very significantly), believe that e-UNNAT has had a substantial impact in this regard. Additionally, 34% of respondents feel that the improvement has been moderate. However, there is also a notable segment of respondents who perceive less impact: 24% feel that the improvement is slight (14%) or not at all (10%). These responses indicate that while e-UNNAT has made strides in enhancing real-time and cost-effective service delivery, there remains room for improvement to further optimize its effectiveness and reach in the region. Addressing feedback from those who perceive minimal impact could help in identifying areas for enhancement and maximizing the benefits of e-UNNAT for all users in the region.

Table 4.22: To what extent has the e-UNNAT initiative, with its focus on ICT, contributed to overall community development in Kulgam District?

S. No.	To what extent has the e-UNNAT initiative, with its focus on ICT, contributed to overall community development in Kulgam District?	Frequency	Percentage
1	Negligible	07	5
2	Minor	11	8
3	Moderate	47	35
4	Significant	56	42
5	Very significant	13	10
	Total	**134**	**100%**

Chart 4.20: To what extent has the e-UNNAT initiative, with its focus on ICT, contributed to overall community development in Kulgam District?
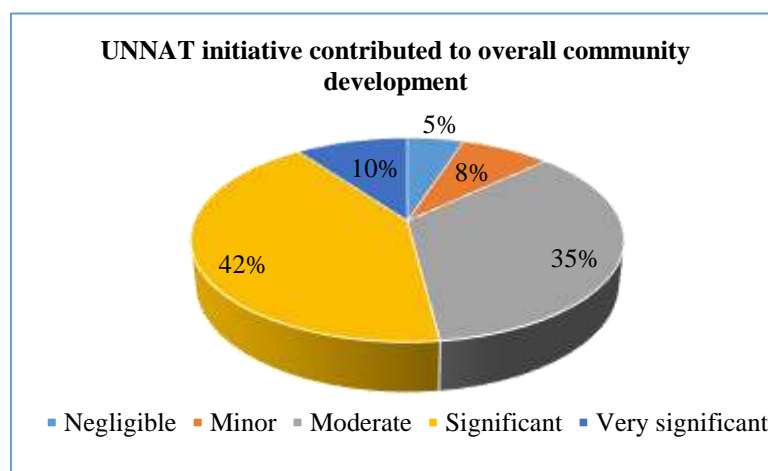
According to the survey data, perceptions regarding the contribution of the e-UNNAT initiative, with its focus on ICT, to overall community development in Kulgam District are predominantly

positive. A significant 52% of respondents (42% significant and 10% very significant) believe that e-UNNAT has made a substantial impact on community development. Additionally, 35% of respondents perceive the impact as moderate. However, there is a smaller segment of respondents who perceive the impact as minor (8%) or negligible (5%). These responses indicate that while there is widespread recognition of the positive influence of e-UNNAT on community development, there are still some who feel the impact could be enhanced or more visible. Addressing feedback from those who perceive minor or negligible impact could involve highlighting specific achievements and benefits brought about by the initiative, as well as continuing to expand and improve its services to further support community development in Kulgam District.

Table 4.23: How satisfied are you with the level of service delivery facilitated e-UNNAT?

S. No.	How satisfied are you with the level of service delivery facilitated e-UNNAT?	Frequency	Percentage
1	Very Dissatisfied	09	8
2	Dissatisfied	12	10
3	Neutral	33	28
4	Satisfied	41	35
5	Very Satisfied	22	19
Total		**117**	**100%**

Chart 4.21: How satisfied are you with the level of service delivery facilitated e-UNNAT?
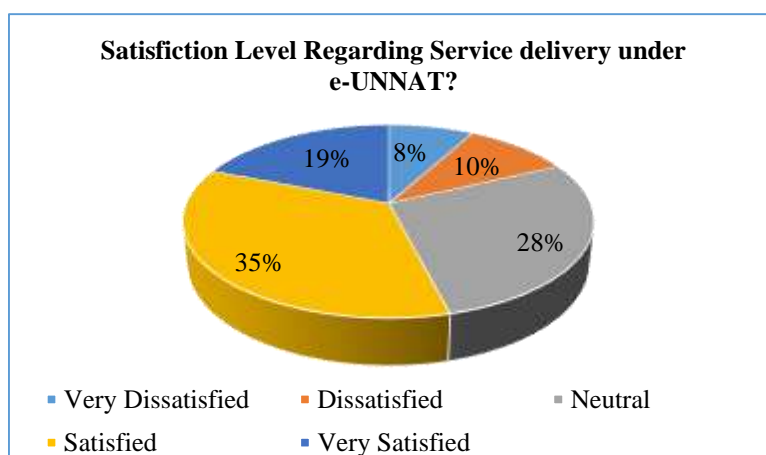
Based on the survey data, satisfaction levels with the service delivery facilitated by e-UNNAT vary among respondents. A combined 54% of respondents either feel satisfied (35%) or very satisfied (19%) with the level of service delivery. On the other hand, 18% of respondents are dissatisfied (10% dissatisfied and 8% very dissatisfied), and 28% remain neutral on the matter. These results indicate a mixed perception regarding the satisfaction with service delivery facilitated by e-UNNAT. While a majority express satisfaction, there is a notable portion that feels either dissatisfied or neutral. Addressing concerns raised by dissatisfied respondents and further enhancing the service delivery experience could help in improving overall satisfaction levels and ensuring that e-UNNAT meets the needs and expectations of its users effectively.

Table 4.24: e-UNNAT paved the way for inclusive governance in the region?

S. No.	e-UNNAT paved the way for inclusive governance in the region?	Frequency	Percentage
1	Strongly Disagree	00	00
2	Disagree	07	5
3	Neutral	68	51

4	Agree	32	24
5	Strongly Agree	27	20
Total		**134**	**100%**

Chart: 4.22: e-UNNAT paved the way for inclusive governance in the region?
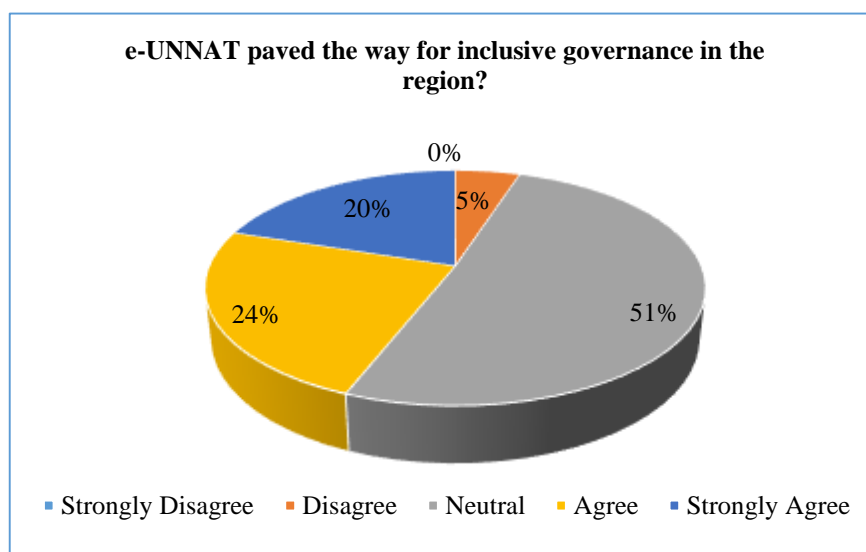
According to the survey data, opinions regarding whether e-UNNAT has paved the way for inclusive governance in the region are diverse. A combined 44% of respondents either agree (24%) or strongly agree (20%) that e-UNNAT has contributed to inclusive governance. Conversely, 5% of respondents disagree, and a majority of 51% remain neutral on the matter. These results suggest that while there is some positive perception of e-UNNAT's role in promoting inclusive governance, a significant portion of respondents have yet to form a strong opinion or see tangible evidence of its impact in this area. Addressing neutrality through increased awareness and highlighting specific instances of inclusive governance facilitated by e-UNNAT could potentially enhance perceptions and strengthen its role in fostering inclusive governance practices in the region.

Table 4.25: e-UNNAT initiative has effectively addressed the challenges related to ICT integration for socio-economic development in Kulgam District?

S. No.	e-UNNAT initiative has effectively addressed the challenges related to ICT integration for socio-economic development in Kulgam District?	Frequency	Percentage
1	Strongly Disagree	04	3
2	Disagree	13	10
3	Neutral	59	44
4	Agree	38	28
5	Strongly Agree	20	15
	Total	**134**	**100%**

Chart 4.23: e-UNNAT initiative has effectively addressed the challenges related to ICT integration for socio-economic development in Kulgam District?
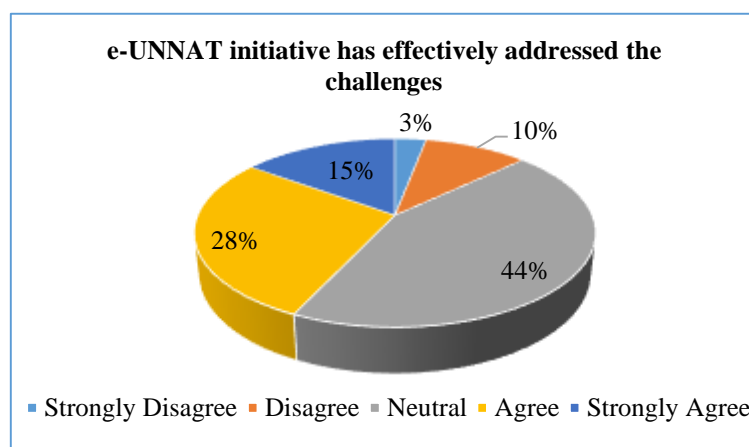
Based on the survey data, opinions regarding whether the e-UNNAT initiative has effectively addressed challenges related to ICT integration for socio-economic development in Kulgam District are varied. A combined 43% of respondents either agree (28%) or strongly agree (15%) that e-UNNAT has effectively addressed these challenges. Conversely, 13% of respondents

disagree (10% disagree and 3% strongly disagree), and 44% remain neutral on the matter. These results indicate a mixed perception regarding the effectiveness of e-UNNAT in addressing ICT integration challenges for socio-economic development. While a significant portion of respondents acknowledge its effectiveness, there are also concerns and a substantial number of neutral responses, suggesting that more efforts may be needed to address remaining challenges and communicate achievements more effectively. Addressing concerns raised by those who disagree and increasing awareness among neutral respondents could help in further enhancing the initiative's impact on ICT integration for socio-economic development in Kulgam District.

Table 4.26: Did you face any technical difficulty/ies while using the e-UNNAT platform?

S. No.	Did you face any technical difficulty/ies while using the e-UNNAT platform?	Frequency	Percentage
1	Yes	38	32
2	No	43	37
3	Can't Say	36	31
Total		**117**	**100%**

Chart 4.24: Did you face any technical difficulty/ies while using the e-UNNAT platform?

Did you face any technical difficulty/ies while using the e-UNNAT platform?

31% 32% 37%

■ Yes ■ No ■ Can't Say

120
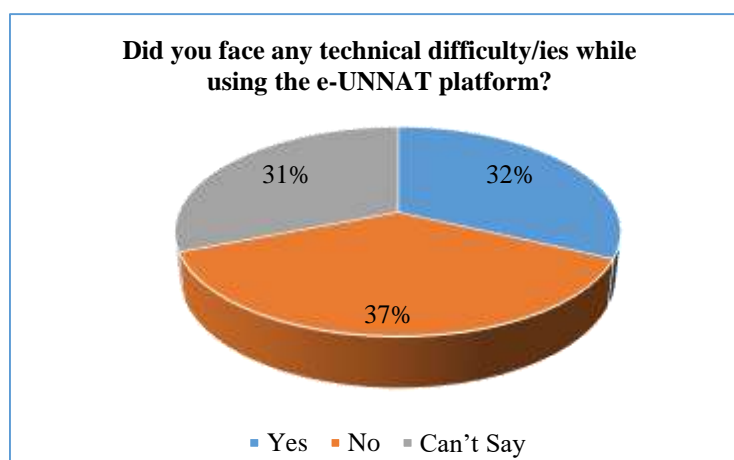
Based on the survey data, respondents' experiences with technical difficulties while using the e-UNNAT platform are varied. Approximately 32% of respondents reported facing technical difficulties, while 37% did not encounter any issues. Interestingly, 31% of respondents were unsure or couldn't say if they faced technical difficulties. These results indicate that while a significant portion of users did not experience technical issues, there is a notable segment that did encounter difficulties, and a considerable number were uncertain about their experiences. Addressing these technical challenges could potentially improve user experience and satisfaction with the e-UNNAT platform. Additionally, efforts to enhance user support and provide clear guidance on using the platform could help mitigate technical issues and improve overall usability for all users in the future.

Table 4.27: If Yes: Specify the challenge?

S. No.	If Yes: Specify the challenge?	Frequency
1	Lack of Knowledge (n=38)	22
2	Complex Portal Design (n=38)	06
3	Connectivity Issue (n=38)	27
4	Any Other (n=38)	13

Based on the survey responses from those who reported facing technical difficulties while using the e-UNNAT platform, the specific challenges can be categorized as follows:

- **Lack of Knowledge**: 22 respondents cited this as a challenge, indicating that they may have struggled due to insufficient familiarity with the platform's features or processes.
- **Connectivity Issues**: 27 respondents mentioned facing connectivity issues, which likely hindered their ability to access or use the e-UNNAT platform effectively.
- **Complex Portal Design**: 6 respondents found the design of the portal to be complex, which could have made navigation or use challenging for them.
- **Other Challenges**: 13 respondents reported other technical challenges not specified in the categories above, suggesting a range of additional issues users encountered.

Addressing these specific challenges—such as improving user education and support, optimizing portal design for usability, and addressing connectivity issues—could help enhance the user experience on the e-UNNAT platform and mitigate technical difficulties faced by users in the future.

Table 4.28: Had you taken help from anyone while availing the service/s through e-UNNAT?

S. No.	Had you taken help from anyone while availing the service/s through e-UNNAT?	Frequency	Percentage
1	Yes	79	68
2	No	38	32
3	Can't Say	00	00
Total		**117**	**100%**

Chart 4.25: Had you taken help from anyone while availing the service/s through e-UNNAT?
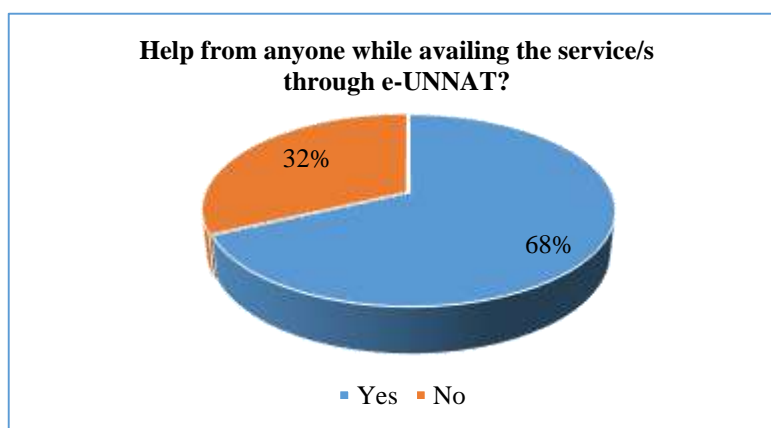
According to the survey data, a significant majority of respondents, comprising 68%, reported that they had taken help from someone while availing services through the e-UNNAT platform. In contrast, 32% stated that they did not require assistance from anyone. Importantly, there were

no respondents who indicated uncertainty (Can't Say) in this regard. This finding suggests that while a notable portion of users sought assistance, likely for navigating or understanding the e-UNNAT platform, a significant number were able to use it independently. Understanding the reasons why users seek help and providing appropriate support could enhance user confidence and satisfaction with the platform, potentially reducing dependency on external assistance over time.

Table 4.29: If Yes: Specify

S. No.	If Yes: Specify	Frequency	Percentage
1	Friend	19	24
2	Relative	13	16
3	CSC/Khidmat Centre	42	53
4	Any Other	5	7
Total		**79**	**100%**

Chart 4.26: If Yes: Specify
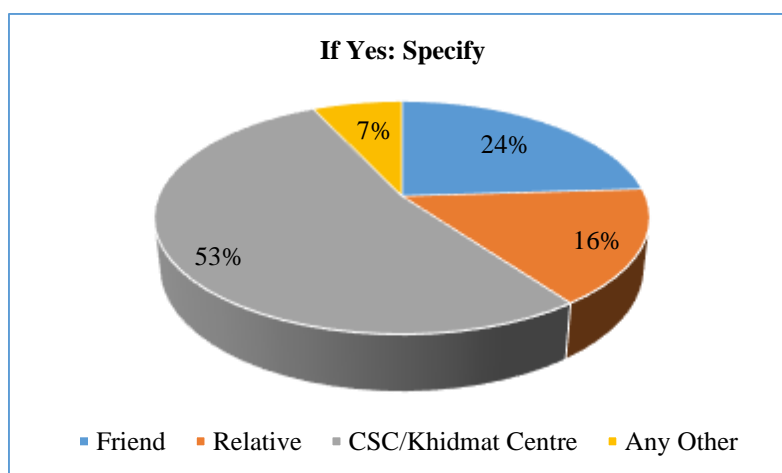
Based on the survey responses from those who indicated they had taken help while accessing services through the e-UNNAT platform, the sources of assistance can be categorized as follows:

- **CSC/Khidmat Centre**: A majority of respondents, 53%, reported receiving help from CSC/Khidmat Centres. These centers likely provided support in navigating the platform, completing transactions, or resolving technical issues.

- **Friend**: 24% of respondents mentioned receiving help from friends. Friends might have assisted with understanding the platform's features, providing guidance on using specific services, or troubleshooting issues.

- **Relative**: 16% of respondents stated they received help from relatives. Similar to friends, relatives may have supported users in accessing and using services on the e-UNNAT platform.

- **Other Sources**: 7% of respondents cited other sources of help not specified above.

These findings highlight the significant role played by CSC/Khidmat Centres in assisting users with accessing e-UNNAT services, underscoring their importance as support hubs for digital service delivery in the surveyed population. Understanding and potentially enhancing the support provided by these centers could further improve user experience and accessibility of e-UNNAT services in the future.

Table 4.30: Are you comfortable with availing services through e-UNNAT rather than physical mode?

S. No.	Are you comfortable with availing services through e-UNNAT rather than physical mode?	Frequency	Percentage
1	Yes	103	88
2	No	14	12
3	Can't Say	00	00
Total		**117**	**100%**

**Chart 4.27: Are you comfortable with availing services through e-UNNAT rather than physical mode?**
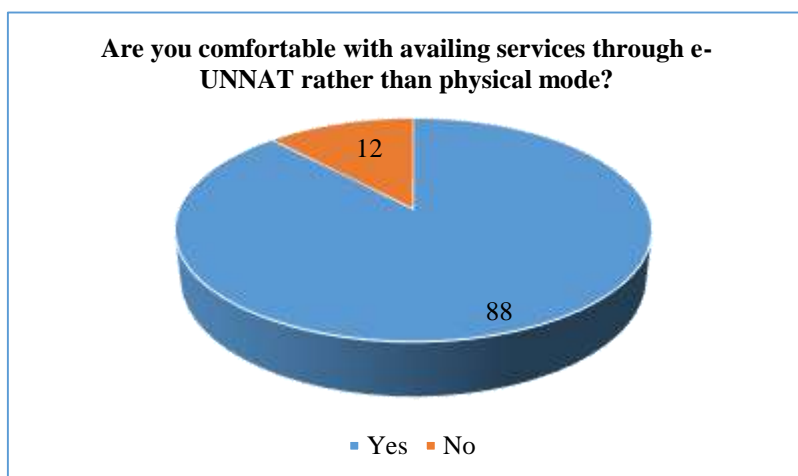
According to the survey results, a significant majority of respondents, 88%, indicated that they are comfortable with availing services through e-UNNAT rather than through physical modes. On the other hand, 12% of respondents expressed that they are not comfortable with availing services through e-UNNAT. There were no respondents who chose "Can't Say" in response to this question. This data underscores a strong preference among the surveyed population for using e-UNNAT over traditional physical modes for accessing services, highlighting the perceived benefits and convenience offered by digital platforms like e-UNNAT.

Table 4.31: e-UNNAT portal is user friendly and easy to use?

S. No.	e-UNNAT portal is user friendly and easy to use?	Frequency	Percentage
1	Strongly Disagree	00	00
2	Disagree	09	8
3	Neutral	37	32
4	Agree	29	25
5	Strongly Agree	42	35
	Total	**117**	**100%**

Chart 4.28: e-UNNAT portal is user friendly and easy to use?
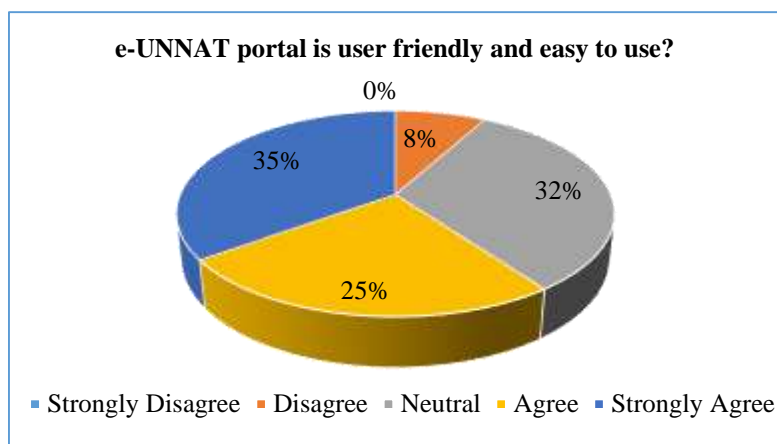
Based on the survey data, opinions regarding the user-friendliness and ease of use of the e-UNNAT portal are generally positive. A combined 60% of respondents either agree (25%) or strongly agree (35%) that the e-UNNAT portal is user-friendly and easy to use. Conversely, 8% of respondents disagree (8%) or strongly disagree (0%) with this statement. Additionally, 32% of respondents remain neutral on the matter. These results suggest that a majority of users find the e-UNNAT portal intuitive and straightforward, which is crucial for enhancing user satisfaction and engagement. Addressing concerns raised by those who are neutral or disagreeing could involve further simplifying the user interface, providing clearer instructions, or enhancing user support to improve overall usability and user experience on the e-UNNAT platform.

Table 4.32: Language of e-UNNAT portal is easy to understand?

S. No.	Language of e-UNNAT portal is easy to understand?	Frequency	Percentage
1	Strongly Disagree	02	2
2	Disagree	07	6
3	Neutral	42	36

4	Agree	39	33
5	Strongly Agree	27	23
Total		**117**	**100%**

Chart 4.29: Language of e-UNNAT portal is easy to understand?
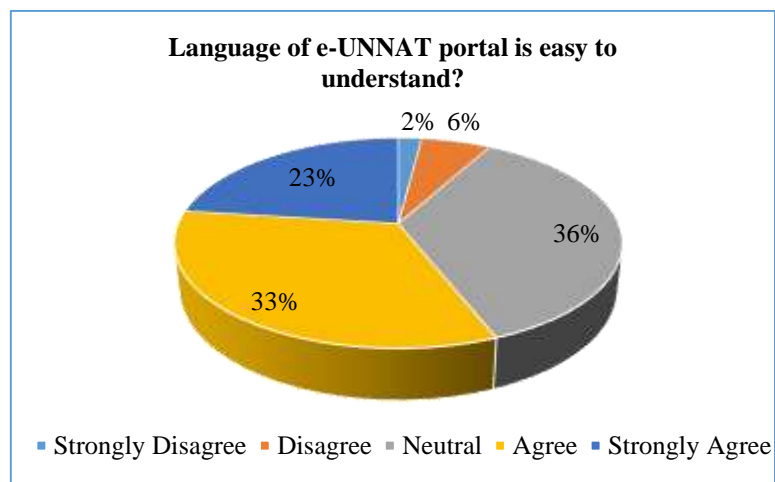
Based on the survey data, perceptions regarding the language used in the e-UNNAT portal being easy to understand are varied. A combined 56% of respondents either agree (33%) or strongly agree (23%) that the language of the e-UNNAT portal is easy to understand. Conversely, 8% of respondents disagree (6% disagree and 2% strongly disagree) with this statement. Additionally, 36% of respondents remain neutral on the matter. These results indicate a mixed perception regarding the language clarity and ease of understanding on the e-UNNAT portal. While a significant portion of respondents find the language easy to comprehend, there is a notable segment that does not share this sentiment or remains undecided. Addressing concerns raised by those who find the language challenging or neutral could involve simplifying language usage, providing multilingual support, or enhancing explanatory materials to improve overall accessibility and user experience on the e-UNNAT platform.

Table 4.33: Lack of awareness about e-UNNAT hinders its effectives?

S. No.	Lack of awareness about e-UNNAT hinders its effectives?	Frequency	Percentage
1	Strongly Disagree	42	36
2	Disagree	58	49
3	Neutral	06	5
4	Agree	11	10
5	Strongly Agree	00	00
	Total	**117**	**100%**

Chart: 4.30: Lack of awareness about e-UNNAT hinders its effectives?

Lack of awareness about e-UNNAT hinders its effectives?
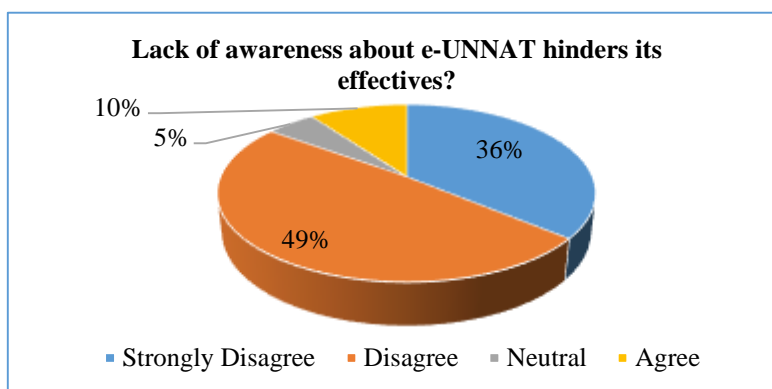
Based on the survey data, the majority of respondents do not believe that lack of awareness about e-UNNAT hinders its effectiveness. Specifically:

- 85% of respondents either strongly disagree (36%) or disagree (49%) that lack of awareness about e-UNNAT hinders its effectiveness.
- 5% of respondents are neutral on the matter.
- 10% of respondents agree that lack of awareness hinders its effectiveness, and none strongly agree.

These findings suggest that a significant portion of the surveyed population perceives that awareness is not a major hindrance to the effectiveness of e-UNNAT. This positive perception

indicates that efforts to increase awareness and understanding of e-UNNAT's services could potentially enhance its utilization and impact in the community.

Table 4.34: Issues related to privacy and data security are prevalent with the use of e-UNNAT?

S. No.	Issues related to privacy and data security are prevalent with the use of e-UNNAT?	Frequency	Percentage
1	Strongly Disagree	09	8
2	Disagree	20	17
3	Neutral	63	54
4	Agree	17	14
5	Strongly Agree	08	7
Total		**117**	**100%**

Chart 4.31: Issues related to privacy and data security are prevalent with the use of e-UNNAT?

Issues related to privacy and data security are prevalent with the use of e-UNNAT?

7% 8% 14% 17% 54%

■ Strongly Disagree ■ Disagree ■ Neutral ■ Agree ■ Strongly Agree

129
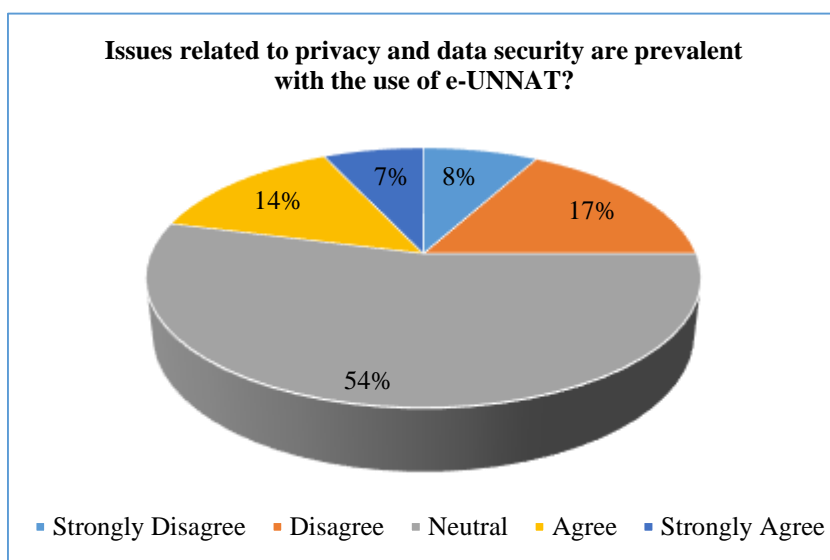
Based on the survey data, perceptions regarding issues related to privacy and data security with the use of e-UNNAT are diverse among respondents. A majority of 54% expressed neutrality on the prevalence of these issues, indicating a lack of strong opinion or uncertainty. Conversely, 21% of respondents either agree (14%) or strongly agree (7%) that such issues are prevalent. On the other hand, 25% of respondents disagree (17%) or strongly disagree (8%) with the notion that privacy and data security concerns are prevalent. These findings highlight a significant level of uncertainty or lack of consensus among respondents regarding the extent of privacy and data security issues associated with e-UNNAT. While a sizable minority expresses concerns, a similar number disagrees with the prevalence of these issues. Addressing these perceptions could involve enhancing transparency about data handling practices, implementing robust security measures, and educating users about privacy protections to build trust and confidence in the e-UNNAT platform.

Table 4.35: How likely you will recommend the use of e-UNNAT to others in Kulgam District?

S. No.	How likely you will recommend the use of e-UNNAT to others in Kulgam District?	Frequency	Percentage
1	Very Unlikely	09	8
2	Unlikely	11	9
3	Neutral	27	23
4	Likely	48	41
5	Very Likely	22	19
Total		**117**	**100%**

Chart 4.32: How likely you will recommend the use of e-UNNAT to others in Kulgam District?

How likely you will recommend the use of e-UNNAT to others in Kulgam District?

- 8%
- 9%
- 23%
- 41%
- 19%

Very Unlikely ■ Unlikely ■ Neutral ■ Likely ■ Very Likely
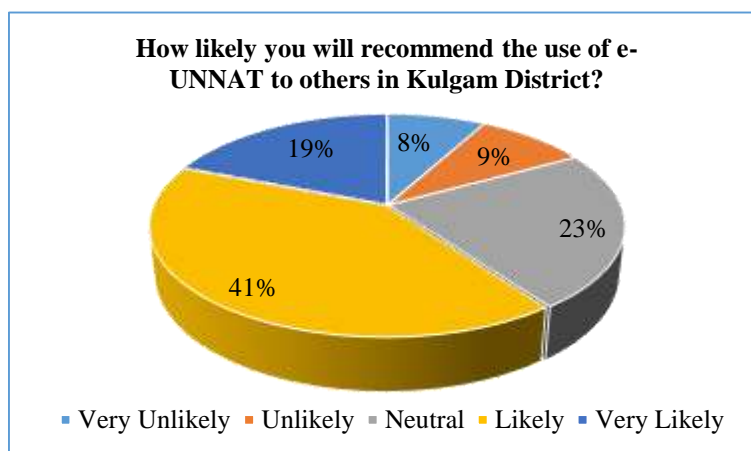
Based on the survey responses regarding the likelihood of recommending the use of e-UNNAT to others in Kulgam District, the data reveals the following distribution: A combined 60% of respondents indicated they are likely (41%) or very likely (19%) to recommend using e-UNNAT to others. This positive sentiment reflects a majority view that the platform is beneficial and satisfactory enough to warrant endorsement to others. Conversely, 17% of respondents expressed hesitation towards recommending e-UNNAT. This includes 9% who are unlikely and 8% who are very unlikely to recommend the platform. Additionally, 23% of respondents remained neutral on the matter, indicating they neither lean towards recommending nor discouraging others from using e-UNNAT. Overall, while a significant portion of respondents are positive about recommending e-UNNAT, there is a notable minority who have reservations. Addressing concerns and enhancing user satisfaction could potentially increase the likelihood of positive recommendations, thereby fostering broader adoption and utilization of e-UNNAT in Kulgam District.

Table 4.36: What recommendations would you make to improve the accessibility, usability, and effectiveness of e-UNNAT?

S. No.	What recommendations would you make to improve the accessibility, usability, and effectiveness of e-UNNAT?
1	Providing user-friendly tutorials or guides
2	Offering multi-language support
3	Conducting awareness campaigns
4	Strengthening data security measures
5	Other (please specify)
Total	

To make the e-UNNAT more accessible, cost-effective and deliverable, it becomes important to inculcate the above mentioned suggestions.

Table 4.37: Have you used any other portal for online services other than e-UNNAT?

S. No.	Have you used any other portal for online services other than e-UNNAT?	Frequency	Percentage
1	Yes	29	22
2	No	105	78
3	Can't Say	00	00
Total		**134**	**100%**

Chart 4.33: Have you used any other portal for online services other than e-UNNAT?
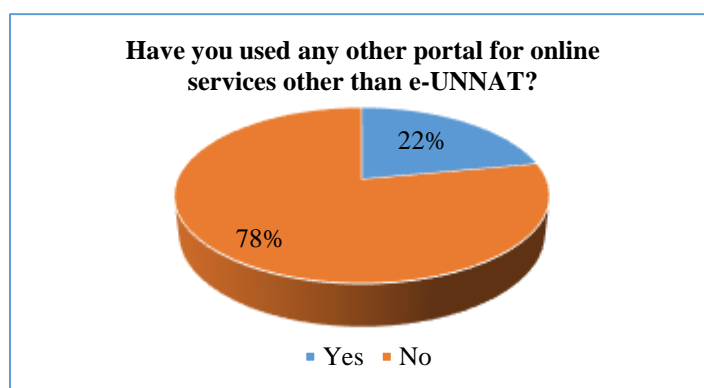
Based on the survey data, the majority of respondents, comprising 78%, indicated that they have not used any other portal for online services besides e-UNNAT. In contrast, 22% of respondents reported that they have used another portal for online services. This data suggests that while e-UNNAT is the predominant choice among surveyed individuals for accessing online services, there is still a minority who have experience with other portals. Understanding the reasons behind these preferences and experiences could provide insights into how e-UNNAT can further differentiate itself or improve to meet the needs of users effectively. Additionally, exploring the satisfaction levels and specific features of other portals used by respondents may offer valuable comparative insights for enhancing the user experience on e-UNNAT.

Table 4.38: If Yes: Specify the level of satisfaction with the other portal?

S. No.	If Yes: Specify the level of satisfaction with the other portal?	Frequency	Percentage
1	Highly Dissatisfied	03	10
2	Dissatisfied	02	07
3	Neutral	13	45
4	Satisfied	07	24
5	Highly Satisfied	04	14
	Total	**29**	**100%**

Chart 4.34: If Yes: Specify the level of satisfaction with the other portal?

If Yes: Specify the level of satisfaction with the other portal?

- Highly Dissatisfied
- Dissatisfied
- Neutral
- Satisfied
- Highly Satisfied
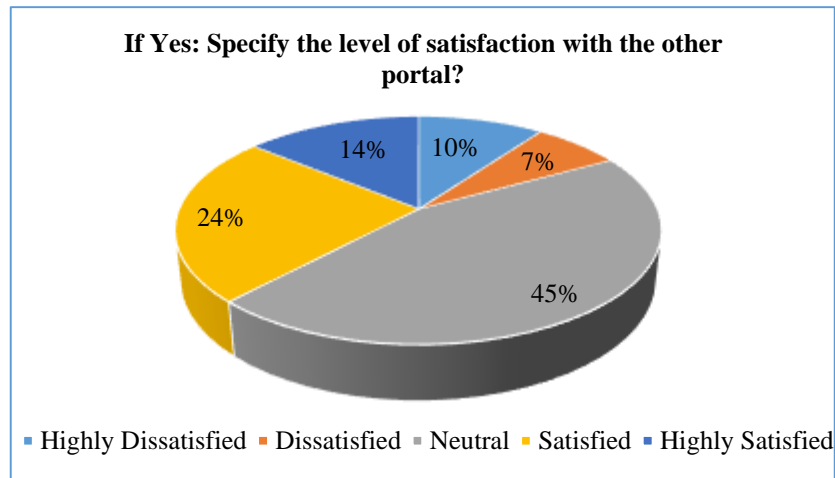
Based on the survey responses from those who have used another portal for online services besides e-UNNAT, the levels of satisfaction with the other portal are categorized as follows:

- **Highly Dissatisfied**: 10% of respondents expressed this level of dissatisfaction.
- **Dissatisfied**: 7% of respondents reported being dissatisfied.
- **Neutral**: The largest group, comprising 45% of respondents, indicated a neutral satisfaction level.
- **Satisfied**: 24% of respondents stated they were satisfied.
- **Highly Satisfied**: 14% of respondents reported being highly satisfied.

These findings indicate a mixed satisfaction level among users who have experience with other portals for online services. While a significant portion expressed neutrality, there are notable percentages of both satisfaction and dissatisfaction. Understanding the reasons behind these satisfaction levels could provide valuable insights into areas where e-UNNAT can improve or differentiate itself to better meet user expectations and preferences. Additionally, addressing any dissatisfaction can potentially enhance user retention and satisfaction on the e-UNNAT platform.

Table 4.39: Suggestions

S. No.	Suggestions
1	Bridging Digital Divide
2	Developing Critical Infrastructure
3	Creating More Awareness
4	Participation of PRIs in awareness
5	Participatory Governance Model

Although, the primary role of e-UNNAT is to provide the services accessible to all under PSGA, 2011. There remain a few deficiencies that demand the implementation of concrete efforts including developing bridging digital divide, developing critical infrastructure, participatory governance model among others.

4.5 Critical Assessment of Data Based on Categorical Variables

The analysis of Tables 4.5 to 4.9 reveals a critical intersection of habitation, occupation, marital status, and awareness regarding the e-UNNAT initiative in Jammu and Kashmir. The data indicates a clear rural majority in the respondent pool, with 66.66% from Tehsils Devsar and D. H. Pora and 33.33% from urban Tehsil Kulgam. No semi-urban respondents were recorded, reflecting a habitation binary that restricts broader interpretive diversity. This lopsided representation suggests that insights drawn from the study may be more reflective of rural challenges and realities. Given that rural areas often lag in digital infrastructure and awareness, the low level of e-UNNAT awareness (44.7%) among respondents aligns with the habitation pattern. This urban-rural divide remains a significant explanatory factor in technology diffusion, service utilization, and digital literacy. Consequently, habitation appears to be a primary determinant in shaping citizen engagement with e-Governance platforms like e-UNNAT in the Kulgam region.

Occupation-wise, the sample is equally divided among four categories—farmers, employees, businesspersons, and students—each comprising 25% of the respondents. However, a closer look reveals urban respondents, primarily from Tehsil Kulgam, dominating the student, employee, and business categories. This concentration helps explain the relatively higher awareness of e-UNNAT among these groups, as indicated in Table 4.8. The occupational engagement in formal and semi-formal economic sectors is more likely to expose individuals to digital public services. In contrast, rural respondents—especially farmers, who are the least likely to access digital platforms—are underrepresented in the awareness figures. This disparity further underlines how economic roles and spatial factors compound to create unequal access to e-Governance services. The occupational structure thereby directly influences the awareness trajectory and digital participation in the region.

Marital status provides another lens through which these patterns can be examined. With 51.7% unmarried and 47.3% married respondents, the demographic appears fairly balanced in terms of life-stage distribution. However, this balance does not significantly influence awareness patterns unless examined through occupational or educational lenses. For instance, most unmarried respondents also fall into the student and early-career employee categories, typically associated with urban habitation and better digital exposure. Meanwhile, the rural married population—often older and engaged in traditional occupations—shows limited interaction with digital governance platforms. The absence of divorced respondents and the minimal presence of widows (1%) point toward a sample that lacks diversity in certain life experiences, thereby limiting the scope of marital status as an independent analytical variable in shaping e-Governance engagement.

The awareness data in Table 4.8 clearly shows a 55.3% majority who are unaware of e-UNNAT. A significant portion of those who are aware belong to urban areas and are either students, employees, or businesspersons. This trend reveals the stark digital divide between the rural majority and the urban minority in the sample. As shown in Table 4.9, lack of awareness, limited advertisement, educational backwardness, and digital divide are the core barriers to awareness, which correlate strongly with rural habitation and traditional occupations. The fact that there are no respondents who selected "Can't Say" further confirms a binary awareness

structure, rooted more in access and exposure than in partial knowledge or uncertainty. Hence, habitation and occupational roles remain the most significant variables in understanding why digital initiatives like e-UNNAT have uneven reach in the Kulgam region of Jammu and Kashmir.

A deeper comparative analysis across gender, education, and employment is constrained by the limited sample diversity. The dataset reflects minimal female participation, with insufficient gender-specific data to facilitate meaningful analysis. Likewise, educational stratification is not captured explicitly in the tables, limiting the ability to correlate education levels with e-Governance awareness. Employment diversity, while categorized, does not capture income levels or sectoral nuances that could further explain patterns of digital adoption. Therefore, although habitation and occupation provide crucial insight into the landscape of e-Governance in J\&K, other axes of comparison such as gender and education remain underexplored due to sample limitations. This restricts the development of a more inclusive understanding of the e-UNNAT initiative's impact and penetration.

4.6 Perception of Key Respondents (PART A: District Administration and Media)

In Kulgam district of Jammu and Kashmir, key respondents perceive e-UNNAT as a transformative initiative, pivotal for advancing local development. Stakeholders commend its role in enhancing digital access to essential services, fostering community engagement, and promoting sustainable practices. Their feedback highlights e-UNNAT's effectiveness in bridging urban-rural divides, improving resource allocation, and empowering marginalized groups. Despite initial challenges, stakeholder's express optimism about its long-term impact on economic growth and social cohesion, underscoring the program's potential to catalyze comprehensive development in the region.

Table 4.40: Profile of Key Respondents (District Administration and Media)

S. No.	Key Respondents	Frequency
1	Deputy Commissioner Office, Kulgam (Additional Deputy Commissioner, District Panchayat Officer, and National Informatics Centre.	03
2	Tehsil Office, Kulgam	02
3	Block Office, Kulgam	02
4	Media Personnel	03
Total		10

The present section outlines the thematic analysis of e-UNNAT in context of Jammu and Kashmir. In the given section, the perception of key respondents has been analyzed thoroughly under appropriate themes as mentioned below. There is diversity in terms of number of key respondents and it helps in deriving the relevant conclusions from diverse perspectives.

Theme 1

Can you provide an overview of the e-UNNAT program in Kulgam district?

The e-UNNAT program in Kulgam district aims to enhance digital governance and improve public service delivery through the integration of technology. Key respondents, including officials from the Deputy Commissioner's Office, Tehsil and Block offices, and Khidmat Centres, highlight the program's role in streamlining administrative processes and making services more accessible to the public. Through e-UNNAT, services such as domicile certificates, and public grievances can be processed online, reducing delays and increasing efficiency. The involvement of media personnel also ensures that the public is informed about the benefits and functioning of the program. Khidmat Centres/CSCs act as vital access points for citizens, providing a direct link between the government and the people. With a strong emphasis on digital infrastructure, the e-UNNAT program seeks to promote transparency,

accountability, and improved service delivery in Kulgam, contributing to the district's overall development.

Theme 2

What are the primary objectives of introducing the e-UNNAT program in the district?

The primary objectives of introducing the e-UNNAT program in Kulgam district are:

- ✓ To enhance digital governance, improve service delivery, and ensure greater accessibility to government services.
- ✓ The program aims to streamline administrative processes by digitizing services such as certificates, welfare schemes, and grievance redressals, making them faster, more efficient, and less prone to delays.
- ✓ By implementing e-UNNAT, the district seeks to increase transparency and accountability in the public sector, reducing corruption and inefficiency.
- ✓ The program also strives to promote inclusivity by making services accessible to all, particularly in remote areas through Khidmat Centres/Common Service Centres (CSCs), which act as points of contact between the government and the public.
- ✓ Moreover, the e-UNNAT program works towards bridging the digital divide, ensuring that marginalized communities have equal access to digital services, thus contributing to the overall socio-economic development of the district.

Theme 3

What are the factors responsible for the development of e-UNNAT in the region?

Several factors have contributed to the development of the e-UNNAT program in Kulgam district.

- ✓ Firstly, the need for improved governance and efficient service delivery has been a significant driving force, as manual processes were slow, prone to errors, and often inaccessible to remote populations.

- ✓ The advancement of digital infrastructure in the region, such as increased internet connectivity and the proliferation of Common Service Centres (CSCs)/Khidmat Centres, has made it feasible to implement e-governance initiatives.
- ✓ Additionally, the government's push for digital transformation at both state and national levels has fostered a supportive policy environment.
- ✓ Public demand for faster, transparent, and easily accessible services has also played a crucial role.
- ✓ Furthermore, the emphasis on reducing corruption and ensuring accountability in public service delivery has made digital solutions like e-UNNAT an essential tool for achieving these goals. Collectively, these factors have shaped the successful development of e-UNNAT in the region.

Theme 4

What kinds of services are being offered under e-UNNAT in the district?

Under the e-UNNAT program in Kulgam district, a wide range of digital services are being offered to enhance public access and streamline government processes. These services include the online issuance of various certificates such as domicile certificates, income certificates, and other essential documents, which were previously processed manually, resulting in delays. The program also facilitates the processing of social welfare schemes, ensuring timely disbursement to beneficiaries. Additionally, e-UNNAT enables the online filing and tracking of public grievances, ensuring quicker resolution of issues. The system allows citizens to access land records, permits, and licenses online, reducing the need for physical visits to government offices. Through Common Service Centres (CSCs), the program provides a user-friendly interface for individuals, particularly in remote areas, to avail of these services. At large, e-UNNAT aims to make governance more transparent, efficient, and accessible to all citizens in the district.

Theme 5

How easy or difficult is it for residents to access and use services under e-UNNAT?

Accessing and using services under the e-UNNAT program in Kulgam district is generally designed to be user-friendly, but the ease of use can vary depending on several factors. For residents with basic digital literacy, the process is relatively straightforward, as Common Service Centres (CSCs) act as accessible points for service delivery, allowing citizens to easily avail services like certificates, pension distributions, and grievance redressal. These centres are equipped to assist those unfamiliar with digital platforms. However, for residents with limited technological skills or those in remote areas with inconsistent internet connectivity, accessing these services can be challenging. Although the program aims to bridge the digital divide, certain groups, particularly the elderly or those with minimal exposure to technology, may still face difficulties.

Theme 6

What has been the public response to the program in Kulgam?

The public response to the e-UNNAT program in Kulgam has been largely positive, with many residents appreciating the convenience and efficiency it offers. The program has simplified access to government services, such as certificates, pensions, and land records, reducing the need for lengthy visits to government offices. Common Service Centres (CSCs) have played a crucial role in helping people, especially those in remote areas, navigate the system and avail services without hassle. However, some residents, particularly the elderly and those with limited digital literacy, have faced challenges in using the online platforms. Despite this, the program's transparency and ability to reduce corruption and delays in service delivery have garnered significant approval. At large, while there are areas that require improvement, the public response reflects a growing recognition of the program's potential to make governance more accessible, efficient, and inclusive in the district.

Theme 7

Have there been any notable improvements in service delivery due to e-UNNAT?

There have been notable improvements in service delivery due to the e-UNNAT program in Kulgam. The program has significantly streamlined administrative processes,

reducing delays and improving the efficiency of service provision. Services like the issuance of certificates, pension distribution, and social welfare schemes, which previously involved long waiting times and manual procedures, are now processed faster through digital platforms. Public grievances can be lodged and tracked online, ensuring quicker resolution. Additionally, residents have easier access to land records and permits, eliminating the need for multiple visits to government offices. The program has also enhanced transparency by minimizing human intervention, thereby reducing opportunities for corruption. The overall impact of e-UNNAT has been positive, leading to more timely, efficient, and accessible services for the people of Kulgam district.

Theme 8

Are there any barriers to accessing e-UNNAT services (e.g., digital literacy, internet access)?

There are several barriers to accessing e-UNNAT services in Kulgam district, despite the program's many benefits. One of the key challenges is digital literacy. Many residents, particularly the elderly or those from rural areas, may not be familiar with using digital platforms, making it difficult for them to navigate the online services independently. Limited internet access in remote parts of the district also poses a significant barrier. While Common Service Centres (CSCs) offer assistance, inconsistent or slow internet connectivity in certain areas can hinder smooth access to services. Furthermore, some residents may lack the necessary devices, such as smartphones or computers, to use the online platforms effectively. Although the program aims to be inclusive, these barriers continue to affect the widespread adoption and usage of e-UNNAT services, highlighting the need for further efforts in digital literacy and infrastructure development.

Theme 9

What challenges have you encountered during the implementation and execution of the e-UNNAT program?

During the implementation and execution of the e-UNNAT program in Kulgam, several challenges have been encountered. Digital literacy remains a significant hurdle, as many residents, especially older individuals or those from rural areas, lack the necessary skills to navigate online services. Despite assistance from Common Service Centres (CSCs), these individuals often struggle to use the digital platforms effectively. Internet connectivity issues, particularly in remote and hilly areas, further complicate access to services, with slow or unreliable connections leading to delays and frustration. Additionally, there are challenges related to infrastructure, as not all areas have sufficient access to the required technology or devices. Another challenge is the resistance to change, with some people being hesitant to shift from traditional, in-person service delivery to digital platforms. These issues highlight the need for ongoing efforts in digital education, infrastructure improvements, and awareness campaigns to ensure broader adoption of the e-UNNAT program.

Theme 10

How has the e-UNNAT program changed governance practices in the district?

The e-UNNAT program has significantly transformed governance practices in Kulgam district by digitizing and streamlining administrative processes. It has "improved efficiency in service delivery, reducing the dependency on manual paperwork and minimizing delays" in processes like issuing certificates, pension distribution, and land record access. By enabling online grievance redressal and facilitating easier access to various government services, e-UNNAT has made governance more transparent and accountable. The automation of services has reduced opportunities for corruption and human error, leading to a more reliable and timely system. Furthermore, the program has empowered citizens, particularly those in remote areas, by providing easier access to government services through Common Service Centres (CSCs). At large, e-UNNAT has shifted governance practices toward digital inclusivity, making government services more efficient, accessible, and transparent, while also enhancing the overall relationship between the government and the public.

Theme 11

What impact has e-UNNAT had on transparency and accountability in governance?

The e-UNNAT program has had a "positive impact on transparency and accountability" in governance in Kulgam district. By digitizing services, it has reduced the scope for human intervention, minimizing opportunities for corruption and errors in processing applications for certificates, pensions, and other government services. The online grievance redressal system allows citizens to file and track complaints, ensuring that issues are addressed more promptly and transparently. Furthermore, the availability of land records and permits through digital platforms ensures that residents have easy access to accurate and up-to-date information, reducing the chances of misinformation or manipulation. The program's emphasis on automated processes has created a more open system, where each step in service delivery is tracked and monitored, "ensuring that officials are held accountable for their actions".

Theme 12

Are there any measurable outcomes from the program in terms of efficiency and effectiveness?

The e-UNNAT program has led to "measurable outcomes in terms of efficiency and effectiveness" in Kulgam district. One key improvement is the reduction in processing time for services like certificates, pension distribution, and grievance redressal. By digitizing these services, the program has minimized manual paperwork, leading to faster turnaround times and more timely delivery of services. Residents no longer need to wait for long periods or make multiple visits to government offices, enhancing overall service efficiency. In terms of effectiveness, the program has increased accessibility, particularly for remote communities, by providing services through "Common Service Centres (CSCs)". The availability of services online has led to greater public satisfaction, as citizens can easily track their applications and grievances. Additionally, the reduction in corruption and errors due to automated processes has resulted in a more transparent and accountable system.

Theme 13

How do you envision the future of e-governance in Kulgam and Jammu & Kashmir as a whole?

The future of e-governance in Kulgam and Jammu & Kashmir holds great potential for "transforming governance and service delivery". With the continued expansion of digital infrastructure, including better internet connectivity and widespread access to devices, e-governance initiatives like e-UNNAT will become more accessible to all residents, especially in remote and rural areas. The future will likely see further automation of government services, making processes even more streamlined and efficient, reducing manual intervention and minimizing corruption. As digital literacy improves through targeted awareness programs, more citizens will engage with e-governance platforms, making services more inclusive. The integration of artificial intelligence and data analytics could enhance decision-making and resource allocation, "making the system more responsive and adaptive to citizens' needs". At large, the vision for e-governance in Kulgam and Jammu & Kashmir is one where transparent, efficient, and inclusive services empower citizens, improve governance, and contribute to the region's socio-economic development.

Theme 14

What additional support or resources would be needed to improve e-UNNAT in Kulgam?

To improve the e-UNNAT program in Kulgam, several key resources and support are needed.

✓ First, enhanced digital literacy programs are essential, particularly for elderly residents and those in remote areas, to help them navigate online platforms effectively. This could involve community training sessions at Khidmat Centres and CSCs.

✓ Second, improved internet connectivity is crucial, as many areas in Kulgam still suffer from slow or unreliable internet, which hinders smooth access to services. Expanding broadband infrastructure across the district would address this issue.

- ✓ Thirdly, providing more technological infrastructure such as computers, smartphones, and devices at public access points would ensure that more citizens can access the program.
- ✓ A robust awareness campaign is also "needed to educate the public about the benefits of e-UNNAT and how to use it".
- ✓ Lastly, continuous technical support and system maintenance are necessary to ensure smooth operation, address glitches, and keep the system secure and up to date.

Theme 15

What feedback have you received from residents or stakeholders regarding e-UNNAT?

The feedback received from residents and stakeholders regarding the e-UNNAT program in Kulgam has been largely positive, though some challenges remain. Many residents appreciate the convenience of accessing government services like certificates, pensions, and land records online, as it "eliminates the need for multiple visits to government offices and reduces waiting times". The involvement of Common Service Centres (CSCs) has been particularly valued, as these centres assist people in using the digital platforms, making services more accessible to those unfamiliar with technology. However, some stakeholders, particularly in rural areas, have expressed concerns about internet connectivity issues, which can delay access to services. In addition, there have been complaints about digital literacy, with older residents and those with "limited exposure to technology finding it difficult to navigate the system".

Theme 16

How do you personally assess the success of the e-UNNAT program in Kulgam?

We assess the success of the e-UNNAT program in Kulgam as a significant step forward in improving governance and service delivery, though with areas for further improvement. The program has successfully streamlined administrative processes, reducing delays and making services such as certificate issuance, pension distribution, and grievance redressal more efficient and accessible. The involvement of Common Service Centres (CSCs) has made a notable

difference in reaching residents, particularly those in remote areas, providing them with easier access to government services. However, challenges remain, particularly in terms of digital literacy and internet connectivity, which still hinder some residents from fully benefiting from the program. Despite these hurdles, the transparency and accountability that the program has introduced, along with its emphasis on reducing corruption, points to its overall success. With continued investment in infrastructure and education, e-UNNAT can become even more effective and impactful in Kulgam.

Theme 17

Please suggest some measures for improving the e-governance mechanism most importantly e-UNNAT in District Kulgam?

To improve the e-governance mechanism, particularly e-UNNAT in Kulgam, several measures can be implemented.

- ✓ First, digital literacy programs should be expanded, focusing on educating residents, especially the elderly and those in rural areas, to navigate online platforms effectively.
- ✓ Internet connectivity needs to be strengthened across remote areas to ensure reliable access to services, with a focus on expanding broadband infrastructure.
- ✓ Increasing access to digital devices at Common Service Centres (CSCs) would enable more people to use e-UNNAT, even if they don't own personal devices.
- ✓ A robust public awareness campaign is essential to inform citizens about the benefits and usage of e-UNNAT, ensuring higher adoption.
- ✓ Providing continuous technical support through helplines and in-person assistance would address any challenges faced by users.
- ✓ Regular feedback collection and monitoring will help identify issues and refine the system, while enhancing cybersecurity will safeguard against digital threats.

4.7 Perception of Key Respondents (PART B: CSC/Khidmat Centers)

The selected Khidmat Centers in Kulgam district, Jammu and Kashmir—Arreh, Okai, Sangus, Chawalgam, Ahmadabad, and Hedumand Gori—play a vital role in delivering essential government services and promoting digital literacy under the *e-UNNAT* initiative, which aims to integrate rural areas into the digital ecosystem of the state. These Khidmat Centers serve as crucial touchpoints for citizens to access a variety of government services, contributing significantly to the socio-economic development of the region. To delve deep into the role of Khidmat Centers in the union territory of Jammu and Kashmir more particularly in the Kulgam district, ten key respondents from six Khidmat centers have been selected. The selected Khidmat centers and the key respondents thereby are mentioned in the given table:

Table 4.41: Khidmat Centers and Key Respondents from District Kulgam

S. No.	Name of the CSC/Khidmat Center	No. of Respondents
1	Ahmadabad	02
2	Arreh	02
3	Chawalgam	02
4	Hedumand Gori	01
5	Okai	01
6	Sangus	02
Total	**06**	**10**

The data presented pertains to respondents from various Khidmat Centers in District Kulgam, with the total number of respondents being 10. The Khidmat Centers listed are Ahmadabad, Arreh, Chawalgam, Hedumand Gori, Okai, and Sangus. Among these centers, Ahmadabad, Arreh, Chawalgam, and Sangus each have 2 respondents, while Hedumand Gori and Okai have only 1 respondent each. This distribution reflects a relatively equal spread of responses, with some centers receiving slightly more feedback than others. The low number of respondents, particularly from centers like Hedumand Gori and Okai, may suggest limited engagement or reach within those areas. The selected sample size from Khidmat Centers, though modest, provides valuable insights into the respondents' opinions and needs regarding the

"delivery of public services under the shadow of e-UNNAT". The view of the key respondents from the centers have been analyzed in the below section under appropriate themes:

Can you provide a brief overview of the e-UNNAT program and its objectives in Kulgam district?

The e-UNNAT program in Kulgam district aims to promote e-governance by providing digital access to government services, enhancing transparency, and improving service delivery. Among the various Khidmat Centers, Chawalgam and Okai stand out as more familiar to the local population compared to others due to their proximity to distcrict headquarter Kugam. This familiarity likely stems from better accessibility and more consistent usage of services in these areas. The program's primary objective is to bridge the digital divide, making government services more accessible and efficient for residents. However, varying levels of awareness and engagement across different centers highlight the need for further outreach and support.

What services are currently being offered under the e-UNNAT program in your area, and how do they benefit the local population?

The e-UNNAT program in Kulgam district offers a range of digital services aimed at improving public access to government facilities. Services such as digital certificates, pension and welfare schemes, land records, and various certificates are available at Khidmat Centers like Ahmadabad, Arreh, Chawalgam, Hedumand Gori, Okai, and Sangus. Among these, Chawalgam and Okai are more familiar to the locals due to their higher usage rates. These centers provide residents with easy access to essential government services, reducing the need for travel to distant administrative offices. The program benefits the local population by ensuring faster processing, greater transparency, and promoting inclusivity in government service delivery. However, challenges such as digital literacy and internet access still affect some areas like Hedumand Gori and Ahmadabad.

In your experience, how accessible are e-UNNAT services to the residents of Kulgam? Are there any specific challenges in terms of accessibility?

e-UNNAT services in Kulgam are relatively accessible, but there are certain challenges that affect some areas. Khidmat Centers like Arreh, Chawalgam, Okai and Shangus are more frequently used and better known by the local population, making access easier. However, in more remote centers like Hedumand Gori and Ahmedabad, residents face challenges related to internet connectivity and limited digital literacy as lie lie at the periphery of district. This makes it difficult for some people to effectively use e-UNNAT services, especially older or less tech-savvy individuals. Additionally, the lack of infrastructure in some areas can lead to delays in service delivery. Despite these issues, the program has made significant progress in improving service access, though further outreach and support are needed in underserved areas.

How has the introduction of e-UNNAT impacted the efficiency and effectiveness of government service delivery in Kulgam?

There is uniformity of responses in the given question and it has been observed that the introduction of e-UNNAT has significantly improved the efficiency and effectiveness of government service delivery in Kulgam by streamlining processes and reducing manual intervention. It has enabled faster processing of services like certificates, pensions, and welfare schemes, ensuring timely access to essential resources. The digital platform has enhanced transparency, allowing residents to track their applications and reduce delays caused by bureaucratic procedures. Overall, e-UNNAT has made government services more accessible, eliminating the need for long travel distances to government offices, and contributing to a more responsive and accountable system for the local population.

What are the key factors that have influenced the success or challenges of implementing the e-UNNAT program in this region?

In the given question there is variation of response among the operators of Khidmat centers. Key factors influencing the success or challenges of implementing the e-UNNAT

program in Kulgam include digital infrastructure, internet connectivity (mostly in Ahmedabad and Hedumand Gori), and digital literacy. Areas like Arreh, Chawalgam Shangus and Okai have seen better success due to relatively better accessibility and local engagement, whereas remote centers like Hedumand Gori and Ahmedabd face challenges due to poor connectivity and limited technological awareness. Another factor is the awareness and outreach efforts—wherein some regions still lack sufficient information about the program. Additionally, the availability of trained operators at Khidmat Centers plays a critical role in the smooth execution of services, with more training needed in some areas to ensure effective implementation.

Have you observed any changes in public engagement or response since the launch of the e-UNNAT program?

There is uniformity in responses in the given case. There has been a noticeable increase in public engagement since the launch of the e-UNNAT program. Residents have shown greater participation, utilizing digital services for accessing government schemes, certificates, and other essential services. The convenience of online service delivery has encouraged more people to use these platforms. However, in some remote areas like Hedumand Gori, engagement has been slower due to challenges such as low digital literacy and limited internet access. Overall, the program has generated increased awareness, and residents are gradually becoming more familiar with the benefits and ease of accessing government services digitally.

What role does digital literacy play in the adoption of e-UNNAT services, and how can it be improved in the region?

Digital literacy plays a crucial role in the adoption of e-UNNAT services, as it directly impacts how effectively residents can access and use digital platforms. In Kulgam, areas with lower levels of digital literacy face challenges in using e-UNNAT services, leading to reduced engagement. To improve digital literacy, the region can implement community-based training programs, particularly targeting older adults and those with

limited exposure to technology. Additionally, providing hands-on workshops at Khidmat Centers and offering local language support can make these services more user-friendly. Enhancing digital literacy will empower more residents to engage with e-UNNAT, ensuring greater adoption and smoother implementation of the said initiative.

What are the main challenges you face in delivering e-UNNAT services, especially in remote or underserved areas?

CSC operators in Kulgam face several key challenges in delivering e-UNNAT services, particularly in remote areas. One major issue is the internet connectivity, which can be unstable and inconsistent, especially in underserved regions. This results in service delays or disruptions, affecting the timely delivery of services. Additionally, limited access to reliable power sources mostly during the winter and modern digital infrastructure further complicates operations. Digital literacy among residents is also a barrier, as many individuals struggle to use online platforms effectively. In areas with poor connectivity, operators face difficulties in ensuring smooth service delivery, and there is often a lack of awareness or engagement with the program in these remote locations. These challenges have further potential to minimize the influx of public into these centers; thus adds survival threat to the operators and associated people thereby.

Can you discuss the impact of e-UNNAT on governance practices in Kulgam, particularly in terms of transparency and accountability?

The e-UNNAT program has positively impacted governance practices in Kulgam, particularly by enhancing transparency and accountability. Khidmat center operators in areas like Chawalgam, Arreh, Shangus, and Okai, which are more familiar to the public, have played a pivotal role in promoting access to government services. The digital platform allows residents to track their applications and access services without the need for intermediaries, reducing opportunities for corruption and delays. This shift to online services has made government processes more transparent, as citizens can monitor progress and outcomes in real time. Furthermore, the program has increased

accountability, as service delivery is now subject to digital records, making it easier to identify inefficiencies and ensure proper execution of government schemes.

What measures would you suggest to further enhance the e-UNNAT program and e-governance in Kulgam to ensure better service delivery and public participation?

To further enhance the e-UNNAT program and e-governance in Kulgam, a combination of technological, infrastructural, and community-based strategies is essential. Firstly, improving internet connectivity through collaborations with telecom companies and local authorities would ensure that remote areas like Hedumand Gori, Ahmedabad, Kund Area and D.H. Pora have stable access to digital services. Mobile-based applications for service access can be introduced, catering to users who may not have reliable access to computers. Digital literacy programs should be expanded by integrating them into school curricula, targeting youth and older populations alike, and providing specialized training for women and senior citizens to bridge the digital divide. In addition, setting up community Wi-Fi hubs at key locations like local schools, community halls, or markets can provide better connectivity for residents. Strengthening the feedback loop through mobile surveys or an online portal for service reviews would enable continuous improvements based on user experiences. Furthermore, a blockchain-based system could be introduced to enhance transparency and prevent misuse of services, making records immutable and traceable. By combining these unique solutions, Kulgam can ensure a more inclusive, efficient, and transparent e-governance system.

The analysis of Khidmat Centers in Kulgam district, Jammu and Kashmir, highlights their critical role in "delivering government services and promoting digital literacy" under the e-UNNAT initiative. These centers, including Ahmadabad, Arreh, Chawalgam, Hedumand Gori, Okai, and Sangus, have significantly contributed to socio-economic development by providing access to essential services like digital certificates, pensions, and welfare schemes. However, challenges such as "limited digital literacy, poor internet connectivity, and infrastructure gaps", particularly in remote areas like Hedumand Gori and Ahmadabad, hinder full program effectiveness. While centers like Chawalgam and Okai show higher engagement due to better

accessibility, further outreach and training are needed to ensure inclusivity. Overall, e-UNNAT has improved transparency, accountability, and service efficiency, but sustained efforts in infrastructure development, digital literacy, and community engagement are essential for maximizing its impact.

Image 4.35: Khidmat Center Okai

Image 4.36: Khidmat Center Sangus

Image 4.37: Khidmat Center Chawalgam

Image 4.38: Khidmat Center Ahmadabad

Image 4.39: Khidmat Center Herdumand Gori

Image 4.40: Khidmat Center Arreh

Image 4.41: District Kulgam NIC Center

4.8 Conclusion

The e-UNNAT program in Kulgam has proven to be a significant step towards modernizing governance and improving public service delivery. By leveraging digital technology, it has streamlined various administrative processes, making services like certificates, pensions, and land records more accessible and efficient. The program has particularly benefited remote and underserved communities by "providing them with easier access to government services through Khidmat Centres and Common Service Centres (CSCs)". This has not only reduced the need for multiple visits to government offices but also helped mitigate delays and corruption, fostering greater transparency and accountability in public service delivery. However, despite these successes, several challenges remain, particularly in the areas of digital literacy, internet connectivity, and accessibility. Many residents, especially the "elderly or those with limited exposure to technology, still struggle to fully engage with the digital platforms". Moreover, inconsistent internet access in remote parts of the district continues to hinder seamless service delivery. Moving forward, addressing these challenges

through targeted digital literacy initiatives, infrastructure improvement, and "ongoing technical support will be essential" to ensure that the e-UNNAT program reaches its full potential. Additionally, continuous monitoring and feedback from residents will allow for regular refinements and updates to the system. Overall, with continued efforts to bridge the digital divide, the future of e-governance in Kulgam looks promising, with e-UNNAT playing a key role in building a more inclusive, efficient, and transparent governance framework.

CHAPTER 5
CONCLUSION AND SUGGESTIONS

5.1 Introduction

This chapter presents a thorough analysis of the findings derived from examining various data sources and observations concerning the governance and socio-economic conditions of District Kulgam. It seeks to provide a comprehensive overview of the key insights gathered throughout the study, assess the impact and effectiveness of e-governance initiatives, and propose actionable recommendations to overcome identified challenges, ultimately improving governance and service delivery within the district. By carefully reviewing data collected from local communities, key respondents, and initiatives such as the e-UNNAT portal, the chapter highlights the current socio-economic landscape, administrative frameworks, and the role of digital governance tools in facilitating service access.

The findings indicate several strengths in the district's governance structure, including improvements in administrative efficiency and enhanced public service delivery, thanks to the introduction of digital platforms. However, the study also identifies notable weaknesses, such as limited accessibility and technical barriers that hinder the full potential of e-governance tools, particularly for marginalized communities. The chapter underscores the necessity for addressing these gaps to ensure that the benefits of e-UNNAT and other digital initiatives are equitably distributed across all sections of the population.

In addition to highlighting the strengths and weaknesses, this chapter outlines specific suggestions aimed at enhancing governance efficiency, improving citizen engagement, and expanding service accessibility. These suggestions are aligned with the district's broader development objectives, with a focus on creating a governance structure that is more transparent, responsive, and inclusive. Ultimately, this chapter provides a strategic framework for improving the functioning of District Kulgam's governance system, ensuring that it can better meet the diverse needs of its population while fostering sustainable development.

5.2 Findings of the Study

The study on the implementation of e-UNNAT in District Kulgam reveals both the "opportunities and challenges associated with digital governance in the region". e-UNNAT, a digital platform aimed at enhancing service delivery and governance efficiency, has shown promising results in improving access to public services, particularly for urban areas. While e-UNNAT has streamlined administrative processes and made services more accessible, its full potential has yet to be realized due to these challenges. The study highlights significant barriers, including limited internet access, digital literacy gaps, and infrastructural issues that affect rural and marginalized communities. The findings also underscore the importance of increasing citizen engagement, enhancing digital infrastructure, and providing training to "ensure that the benefits of e-governance reach all sections of the population".

The "socio-demographic profile of the respondents in this study offers valuable insights into the diversity and characteristics of the sample population". The majority of respondents are male, comprising 94.7% of the total, while females account for only 5.3%. Age-wise, the majority are young adults between 18-30 years, making up 60.7% of the respondents, with smaller proportions in the older age groups. Educationally, most respondents (64%) have completed at least a graduation level of education, followed by 16% who have completed their 12th grade. A smaller percentage of respondents are illiterate (11%) or have completed their education up to the 10th grade. Regarding geographical location, 66.66% of respondents reside in rural areas, with 33.33% living in urban areas, and none in semi-urban regions. The marital status data reveals a near-even split between married (47.3%) and unmarried (51.7%) individuals, with a small percentage of widows and no respondents identifying as divorced.

The accessibility of the e-UNNAT platform in Kulgam district presents several key insights. While the platform is user-friendly and compatible with various devices and internet speeds, the awareness about its existence is limited, with 55.3% of respondents unfamiliar with it. Among those aware, social media and personal networks, such as friends, were the primary sources of information. Although 56% of those aware know how to access the platform, a significant portion (40.3%) still lacks this knowledge, pointing to a need for clearer guidance. A large majority (87.3%) of respondents have utilized services through e-UNNAT, with the

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majority accessing it through Khidmat Centres, emphasizing the importance of these centers in facilitating service access. The platform's effectiveness in saving time and costs garnered positive feedback, with 64% agreeing that it offers efficiency, although some respondents remained neutral or disagreed.

Regarding the broader impact of e-UNNAT, 74% of respondents believe it has improved the accessibility of government services in the district, and 50.5% feel it has enhanced transparency in governance. Additionally, 63% perceive the platform as improving the speed and efficiency of public service delivery. While a majority (64%) agree that e-UNNAT has contributed to economic empowerment, a portion remains neutral, suggesting that the economic benefits could be more effectively communicated. Opinions on the effectiveness of ICT adoption in e-UNNAT are mixed, with 42% viewing it as effective or very effective, but a significant portion remains neutral or perceives it as ineffective. These findings indicate both positive engagement with the platform and areas where improvements and clearer communication could enhance its impact.

Findings regarding e-UNNAT's impact on real-time and cost-effective service delivery reveal a varied perception. While 42% of respondents (22% significantly and 20% very significantly) believe e-UNNAT has made a substantial improvement, 34% view the impact as moderate. However, 24% of respondents feel that the improvement is minimal, with 14% rating it as slight and 10% seeing no improvement at all. These responses suggest that although e-UNNAT has contributed to better service delivery, further enhancements are necessary to reach all users and optimize its effectiveness. The findings also show that the e-UNNAT initiative has had a generally positive impact on community development in Kulgam District. A majority of respondents, 52% (42% significant and 10% very significant), believe the initiative has made a notable contribution, while 35% consider the impact moderate. A smaller proportion perceives the impact as either minor (8%) or negligible (5%). This indicates broad recognition of e-UNNAT's positive influence, though there are still areas for improvement to ensure its benefits are felt by all community members.

Satisfaction with e-UNNAT's service delivery is also mixed. While 54% of respondent's express satisfaction (35%) or very satisfaction (19%), 18% are dissatisfied (10% dissatisfied

and 8% very dissatisfied), and 28% are neutral. This suggests that while most users are satisfied with the services, there is a significant portion who feel dissatisfied or indifferent. Improving service delivery based on user feedback could further enhance satisfaction levels. Regarding inclusive governance, 44% of respondents either agree (24%) or strongly agree (20%) that e-UNNAT has contributed to inclusive governance. However, 51% remain neutral, suggesting that the impact of e-UNNAT in this area is not universally acknowledged. Increased awareness and showcasing specific instances of inclusive governance could strengthen e-UNNAT's role in fostering inclusivity.

When asked about the initiative's effectiveness in addressing ICT integration challenges for socio-economic development, the responses were varied. 43% of respondents agreed (28%) or strongly agreed (15%) that e-UNNAT has been effective, while 13% disagreed, and 44% remained neutral. This indicates that while e-UNNAT has made progress, there is still work to be done in addressing remaining challenges and improving communication about its achievements. Moreover, technical difficulties with the e-UNNAT platform were reported by 32% of respondents, while 37% did not face any issues, and 31% were uncertain. Specific challenges included lack of knowledge (22 respondents), connectivity issues (27 respondents), and complex portal design (6 respondents). Addressing these issues—by improving user education, optimizing the platform's design, and addressing connectivity concerns—could improve the overall user experience and reduce technical difficulties in the future.

The data also provides a comprehensive look at users' experiences with the e-UNNAT platform in Kulgam District. A majority of respondents (68%) sought help while availing services through e-UNNAT, with CSC/Khidmat Centres playing a dominant role in providing assistance (53%). The platform's user-friendliness is generally well-regarded, with 60% of respondents agreeing or strongly agreeing that it is easy to use. However, 32% of users were neutral, suggesting room for further improvement in usability. Additionally, 56% of respondents found the language used in the portal easy to understand, although 36% remained neutral, indicating potential areas for enhancing language clarity or offering multilingual support. It also highlights strong comfort with digital services, as 88% of respondents expressed preference for e-UNNAT over physical modes of service delivery. Despite this, 32% reported facing technical

difficulties, with issues like connectivity (27%) and lack of knowledge (22%) being the most commonly cited challenges.

Regarding the platform's effectiveness, 85% of respondents did not believe a lack of awareness hinders e-UNNAT's impact, while only 10% agreed that awareness is an issue. Moreover, privacy and data security concerns were less prominent, with only 21% agreeing that such issues are prevalent. Additionally, 60% of respondents are likely to recommend e-UNNAT to others, suggesting a positive overall reception of the platform, although 17% expressed hesitation. The survey also noted that 78% of users had not used any other online service portals, indicating a high reliance on e-UNNAT. Lastly recommendations for improvement include offering user-friendly tutorials, providing multi-language support, conducting awareness campaigns, and strengthening data security measures. These steps could further enhance the platform's accessibility, usability, and overall effectiveness.

5.3 Research Question Answerability

The present section evaluates the pre-defined research questions based on secondary and field data using appropriate methodology. It ensures that the question is clear, specific, and measurable, guiding the study toward achievable outcomes. All the questions have been answered systematically as mentioned below:

Research Question 1: How has the e-UNNAT governance initiative evolved in district Kulgam, and what impact has this evolution had on public administration in the region?

The e-UNNAT governance initiative in district Kulgam has significantly evolved, driven by changing literacy rates and the growing acceptance of technology. As literacy rates have improved, especially with a focus on digital education, the region has seen a steady increase in the population's ability to engage with digital platforms. This change, coupled with the Technological Acceptance Model (TAM), which emphasizes perceived ease of use and usefulness, has "paved the way for the quicker adoption of e-UNNAT services". Khidmat Centres have played a crucial role in laying the foundation for the e-UNNAT infrastructure. These centres, functioning as local service delivery

hubs, have helped bridge the digital divide by providing citizens with access to essential services and fostering digital literacy. They served as intermediaries in educating the population about e-governance, making the transition to e-UNNAT services smoother. Public administration has become more efficient as e-UNNAT facilitates seamless access to government services, improving transparency, reducing corruption, and streamlining service delivery. This evolution is reshaping the way public services are delivered, ensuring more equitable access and fostering trust in the government.

Research Question 2: *How has the implementation of e-UNNAT transformed public service delivery in district Kulgam, and what are its key benefits to citizens?*

The implementation of e-UNNAT in district Kulgam has significantly transformed public service delivery by leveraging digital platforms to enhance efficiency, transparency, and accessibility. Through its integration with the Public Service Guarantee Act (PSGA), e-UNNAT ensures that government services are delivered within stipulated timelines, thus increasing accountability. With over 90% of services delivered on time, citizens benefit from faster, hassle-free access to services like certificates, permits, and welfare schemes. Key benefits include improved transparency, as seen in the feedback system through the Rapid Assessment System (RAS), allowing citizens to provide input on service delivery. The initiative has also made government services more accessible, with over 70% of citizens agreeing that it has streamlined processes and saved time and costs. However, there are challenges, with some delays noted in certificate delivery. Overall, e-UNNAT has modernized public administration, increasing citizen trust and participation while improving governance mechanisms in Kulgam.

Research Question 3: *What challenges do citizens face in accessing public services through e-UNNAT in district Kulgam, and how do these challenges affect service delivery?*

Citizens in district Kulgam face several challenges when accessing public services through e-UNNAT, which affect overall service delivery. A significant issue reported is the lack of knowledge about how to effectively use the platform, with 22 respondents

indicating this as a primary challenge. Additionally, 27 respondents faced connectivity issues, which can lead to delays in accessing or submitting services. Another challenge is the complex portal design, which 6 respondents found difficult to navigate. These technical difficulties hinder efficient service delivery and affect user satisfaction. Regarding satisfaction levels, 18% of respondents expressed dissatisfaction with the service delivery, indicating that issues like technical glitches or difficulty in navigating the portal may contribute to these negative experiences. While a majority of users find the language of the e-UNNAT portal easy to understand, with 56% agreeing or strongly agreeing, these technical and usability barriers still hinder seamless access to services, affecting the timely delivery of public services.

Research Question 4: What measures can be implemented to enhance the effectiveness of the e-UNNAT governance system in district Kulgam and improve service delivery for citizens?

To enhance the effectiveness of the e-UNNAT governance system in district Kulgam, several measures can be implemented. These include institutionalizing Khidmat Centres as permanent access points to provide localized support, offering user-friendly tutorials and multi-language options to improve accessibility, and conducting awareness campaigns, particularly through Panchayati Raj Institutions (PRIs). Strengthening data security measures would build trust, while bridging the digital divide by improving connectivity and providing digital devices would ensure wider access. A unique Community-Driven Digital Ambassador Program can be introduced to train local citizens to assist others in using e-UNNAT, and a gamified feedback system could encourage engagement and continuous improvement. These strategies, together, would make e-UNNAT more inclusive, efficient, and responsive to the needs of citizens in Kulgam, ensuring better service delivery and increased public satisfaction.

5.4 Limitations of the Study

The study on e-UNNAT faces several limitations and challenges, that have affected quality and content of the present research. Considering the uniqueness and recent development of e-UNNAT initiative, the study is subjected to certain limitations as outlined below:

Hilly Terrain in DH Pora: The hilly and remote terrain of DH Pora created significant logistical challenges in reaching survey respondents. The physical barriers limited access to certain areas, hindered the collection of data from a diverse population and making it difficult to ensure a representative sample.

Language Barrier with the Gujjar Tribal Community: The Gujjar tribal community in the region often speaks different dialects or languages *(Gojri)*, which created communication barriers during data collection. This language gap partially affected the accuracy of responses, as some respondents were not fully understand or be able to engage with the survey in the language used.

Limited Access to Key Respondents: Accessibility issues also extend to reaching key respondents, such as government officials, community leaders, and active users of e-UNNAT. Their limited availability or reluctance to participate in the study led to gaps in understanding the broader impacts or challenges faced by stakeholders directly involved with e-UNNAT.

Limited Exploration of e-UNNAT Research: The study is constrained by a lack of in-depth prior research specifically focused on e-UNNAT. The platform's relatively recent implementation means that there is limited literature and empirical studies available to provide a comprehensive foundation for the analysis, thereby restricting the scope of the research.

Limited Usage of e-UNNAT by the Public: The relatively low adoption and usage of e-UNNAT by the local population, especially in rural and remote areas such as *Kund*, posed a challenge in obtaining sufficient data. Many residents were either unaware of the platform or lack the necessary digital literacy and infrastructure to access it, leading to a limited sample size and possibly skewed findings.

Digital Literacy Barriers: The study also encountered challenges in assessing the usability of e-UNNAT for populations with low levels of digital literacy. Many users struggled to navigate the platform effectively, and their inability to fully utilize digital services influenced their experiences and perceptions, complicating data collection and interpretation.

Technological Constraints and Connectivity Issues: Limited internet connectivity *(Kund)* and access to digital devices, especially in rural areas, presented barriers to effective usage of e-UNNAT. These technological limitations have affected the study's ability to reach a broader respondent pool and resulted in a skewed sample, excluding those with no or unreliable internet access.

Cultural and Socioeconomic Differences: Cultural and socioeconomic factors have also affect the willingness of certain groups *(Older People)*, particularly marginalized communities *(Gujjar Tribals)*, to engage with digital platforms like e-UNNAT. Disparities in income, education, and digital access also contributed to uneven participation, leading to an incomplete representation of the community's experiences and challenges with e-UNNAT.

5.5 Future Scope of Study

The future scope of study regarding the e-UNNAT platform presents a rich area for exploration, particularly as digital platforms for service delivery continue to grow in importance. The study could branch into several different themes, each addressing unique aspects of user experience, accessibility, security, and platform efficiency. By examining these areas, the effectiveness of e-UNNAT can be better understood and improved for broader usage.

User Experience and Interface Design: One significant area of future study lies in improving the user experience (UX) of e-UNNAT. While current data suggests that the platform is user-friendly, further research could focus on identifying the specific features or design elements that users find most helpful or challenging. By studying usability patterns, researchers could propose interface changes, such as more intuitive navigation, clearer instructions, or better personalization. Additionally, exploring the impact of

mobile versus desktop use could provide insights into how the platform can cater to a wider range of devices and users.

Accessibility for Diverse Demographics: Another theme for future study could be enhancing accessibility for diverse user groups. While e-UNNAT has a strong user base, there may be underserved populations who face challenges accessing digital platforms, such as the elderly, people with disabilities, or those in rural areas with limited internet connectivity. Research into how e-UNNAT can better accommodate these groups through accessible design, voice command features, or offline service options could ensure more equitable access. Additionally, understanding the effectiveness of multi-language support and how language diversity affects user comprehension can help bridge gaps in service delivery.

Digital Literacy and Support Mechanisms: The role of digital literacy in users' comfort and ability to navigate the platform is another important research theme. While a significant number of user's report taking help from CSC/Khidmat Centres, the study could focus on evaluating the efficacy of existing training programs or creating new, targeted initiatives aimed at enhancing digital literacy. Research could look into the specific barriers users face in understanding the platform and identify tailored support mechanisms, such as user-friendly tutorials, video guides, or live chat assistance. This would help in minimizing dependency on external help and enable users to independently access the platform's services.

Security and Privacy Concerns: Given that 21% of respondents raised concerns about privacy and data security, it is critical to explore this theme in greater depth. Future research could assess the current security measures of e-UNNAT and identify potential vulnerabilities or areas of improvement. Exploring users' attitudes towards data security and privacy could reveal key factors influencing trust in the platform. Additionally, a study could explore the effectiveness of data encryption, the transparency of data-handling processes, and the role of privacy policies in enhancing user confidence. Recommendations could then be made for strengthening security protocols, including user authentication features, secure payment options, and clear privacy guidelines.

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Platform Expansion and Service Diversification: A future area of research could examine the potential for expanding e-UNNAT's service offerings and improving its integration with other digital services. This could involve exploring the feasibility of incorporating new services that align with community needs or the potential to collaborate with other platforms. For example, integrating e-UNNAT with health services, educational resources, or employment assistance could create a more comprehensive digital service hub. Moreover, examining how such expansions could improve user engagement and retention would be valuable.

Impact Assessment and Effectiveness Evaluation: Lastly, conducting a longitudinal study to assess the long-term impact of e-UNNAT would offer valuable insights. Future research could track user satisfaction, service usage, and overall platform effectiveness over time. This could help in understanding the sustained benefits of digital services and identify any emerging challenges or trends that need to be addressed. Researchers could also explore the socio-economic impact of e-UNNAT on the community, examining how digital access has influenced economic participation, educational outcomes, or quality of life.

Therefore, in the above context, the future scope of study regarding e-UNNAT is vast and multifaceted, ranging from enhancing user experience and accessibility to ensuring robust security and expanding service offerings. Addressing these areas through continued research will not only improve the platform's effectiveness but also contribute to the overall development of digital service delivery systems in rural and underserved communities.

5.6 Future Outlook of AI in e-Governance: e-UNNAT Perspective

The integration of Artificial Intelligence (AI) in e-governance is revolutionizing how governments deliver services, ensuring efficiency, transparency, and citizen-centric solutions. AI-powered systems, such as virtual assistants, predictive analytics, and automated administrative workflows, are transforming governance by reducing delays, minimizing corruption, and improving decision-making. In district Kulgam, the e-UNNAT platform can leverage AI to enhance service delivery, but it requires strategic interventions to overcome

challenges like digital illiteracy, accessibility, and security concerns. By adopting AI-driven solutions, Kulgam can streamline processes such as document verification, grievance redressal, and real-time monitoring, ensuring faster and more reliable governance. However, ethical considerations, such as data privacy and algorithmic bias, must be addressed to maintain public trust. The future of e-governance lies in smart city applications, AI-assisted judicial systems, and predictive policy-making, all of which can be adapted to local needs in Kulgam for sustainable development.

To enhance e-UNNAT's effectiveness, institutionalizing Khidmat Centres as permanent access points is crucial. These centers can provide localized assistance, digital training, and troubleshooting support, ensuring that even digitally illiterate citizens benefit from the platform. Additionally, multi-language support and voice-enabled interfaces can improve accessibility for non-tech-savvy users. Awareness campaigns, particularly through Panchayati Raj Institutions (PRIs), can educate rural populations about e-UNNAT's benefits, encouraging wider adoption. Strengthening data encryption and cybersecurity protocols will address privacy concerns, fostering trust among users. Furthermore, expanding internet connectivity and providing subsidized digital devices can bridge the digital divide, ensuring equitable access. By combining these measures with AI-driven automation, Kulgam can transform e-UNNAT into a more responsive, inclusive, and efficient governance tool, aligning with global e-governance advancements.

Another key strategy is the introduction of a Community-Driven Digital Ambassador Program, where trained locals assist others in navigating e-UNNAT. This peer-to-peer support system can reduce dependency on external help centers and empower communities to independently access services. Additionally, a gamified feedback mechanism, where users earn rewards for reporting issues or suggesting improvements, can enhance engagement and provide real-time insights for system upgrades. AI-based chatbots can be integrated to handle common queries, reducing administrative burdens and speeding up service delivery. Predictive analytics can also help identify high-demand services, allowing authorities to allocate resources more efficiently. By adopting these innovative, AI-backed solutions, Kulgam can ensure that e-UNNAT evolves into a dynamic, user-friendly platform that meets the diverse needs of its citizens while setting a benchmark for future e-governance initiatives in rural India.

Thus, the future of AI in e-governance holds immense potential for districts like Kulgam, where digital transformation can significantly improve public service delivery. By implementing localized support systems, robust security measures, and AI-driven automation, e-UNNAT can overcome existing challenges and become a model for inclusive and efficient governance. Continuous research, user feedback, and policy adaptations will be essential to keep the platform relevant and effective in the long term, ensuring that no citizen is left behind in the digital revolution.

5.7 Conclusion

The analysis of District Kulgam's socio-economic and administrative data reveals a complex landscape marked by significant challenges and opportunities for improvement. The census statistics highlight a substantial rural population with a notable sex ratio disparity and a large number of households, indicating areas where targeted socio-economic interventions are needed. The administrative setup, characterized by a multi-layered structure including 7 tehsils, 11 CD blocks, and 21 Nayabat Circles, underscores the need for efficient coordination and management across different administrative units. The current governance framework, while robust in its structure, faces challenges in terms of service delivery and accessibility, particularly in rural and remote areas. To outnumber the challenges associated with governance and public service delivery in district Kulgam, e-UNNAT has been put into place. The field based findings on e-UNNAT provided valuable insights into how users interact with the platform and their overall experiences. A significant portion of respondents sought help while navigating the platform, often turning to CSC/Khidmat Centres for assistance. Despite this need for support, most users expressed comfort with using e-UNNAT over traditional physical service options, reflecting a strong preference for digital platforms. When it comes to usability, the majority found the e-UNNAT portal to be user-friendly, although there was some mixed feedback regarding the clarity of language used on the site. While many found the language easy to understand, a sizable group remained neutral on the matter. Regarding the platform's effectiveness, most respondents did not believe that a lack of awareness was a major obstacle to its use. While some users expressed concerns over privacy and data security, others were not as

worried, indicating a level of uncertainty on the issue. When it came to recommending e-UNNAT to others, many respondents were likely to do so, although some expressed reservations. To improve the platform, users suggested offering more user-friendly tutorials, providing multilingual support, and strengthening data security measures. Furthermore, strengthening digital infrastructure and expanding the reach of the e-UNNAT portal to ensure equitable access to services across all tehsils and rural areas is crucial. In addition, fostering greater community engagement and feedback mechanisms will ensure that governance reforms are responsive to the needs of the population, leading to more inclusive and effective governance in District Kulgam.

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APPENDICES

Dear Respondent:

I am a Ph.D. scholar conducting research on **"THE CHANGING TRENDS OF E-GOVERNANCE UNDER E-UNNAT: A STUDY OF DISTRICT KULGAM (J&K)"** from Lovely Professional University, Punjab. The information being sought from you is for research purpose only. So you are requested to express your views freely and frankly in a neutral and unbiased manner. The information supplied by you shall be kept confidential.

Objectives of the Study

1. To investigate the evolution of e-UNNAT governance initiative in public administration with special reference to district Kulgam
2. To analyze the role of e-UNNAT in providing public service delivery in district Kulgam
3. To evaluate the challenges faced by the citizens in availing the public services under e-UNNAT
4. To suggest effective measures for enhancing the e-governance mechanism in the region

Note:

All the questions in this questionnaire have been designed as per the requirements of research objectives. Kindly contribute to the study in impartial and neutral manner by giving your opinions and suggestions for strengthening the e-governance mechanism in the UT of Jammu and Kashmir.

Profile of Respondents

Name	
Address	
Gender	M/F/Others
Age	18-30/31-40/41-50/>50 Years
Education Level	Illiterate/10th/12th/Graduation and Above
Habitation	Rural/Semi-Urban/Urban
Occupation	Farmer/Employee/Business/Student
Marital Status	Married/Unmarried/Divorced/Widow

1. Are you aware of the e-UNNAT initiative in Jammu and Kashmir?

   a. Yes

   b. No

   c. Can't Say

2. If No: Specify the Reasons

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3. If Yes: How did you came to know about e-UNNAT?

   a. News Outlet

   b. Social Media

   c. Friends

   d. Relatives

4. Do you know how to access the e-UNNAT portal?

   a. Yes

   b. No

   c. Can't Say

5. Have you availed any service/s through e-UNNAT portal?

    a. Yes

    b. No

    c. Can't Say

6. If Yes: Specify the Service from the checklist

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7. How did you access the service/s at e-UNNAT portal?

    a. Mobile

    b. PC/Laptop

    c. CSC/Khidmat Centre

    d. Any Other

8. e-UNNAT is effective in service delivery and saves your time and cost?

    a. Strongly Disagree

    b. Disagree

    c. Neutral

    d. Agree

    e. Strongly Agree

9. e-UNNAT initiative has made government services more accessible to the public in Kulgam district?

    a. Strongly Disagree

    b. Disagree

    c. Neutral

    d. Agree

    e. Strongly Agree

10. e-UNNAT has improved transparency in governance mechanism in Kulgam district?

    a. Strongly Disagree

b. Disagree

c. Neutral

d. Agree

e. Strongly Agree

11. e-UNNAT facilitates faster and more efficient delivery of public services?

    a. Strongly Disagree

    b. Disagree

    c. Neutral

    d. Agree

    e. Strongly Agree

12. e-UNNAT has contributed to economic empowerment in the District?

    a. Strongly Disagree

    b. Disagree

    c. Neutral

    d. Agree

    e. Strongly Agree

13. How would you rate the effectiveness of ICT adoption in e-UNNAT in the Kulgam District?

    a. Ineffective

    b. Partially Ineffective

    c. Neutral

    d. Effective

    e. Very Effective

14. e-UNNAT improved real time and cost-effective service delivery in the region?

    a. Not at all

    b. Slightly

    c. Moderately

    d. Significantly

    e. Very significantly

15. To what extent has the e-UNNAT initiative, with its focus on ICT, contributed to overall community development in Kulgam District?

    a. Negligible

    b. Minor

    c. Moderate

    d. Significant

    e. Very significant

16. How satisfied are you with the level of service delivery facilitated e-UNNAT?

    a. Very Dissatisfied

    b. Dissatisfied

    c. Neutral

    d. Satisfied

    e. Very Satisfied

e-UNNAT paved the way for inclusive governance in the region?

    a. Strongly Disagree

    b. Disagree

    c. Neutral

    d. Agree

    e. Strongly Agree

17. e-UNNAT initiative has effectively addressed the challenges related to ICT integration for socio-economic development in Kulgam District?

    a. Strongly Disagree

    b. Disagree

    c. Neutral

    d. Agree

    e. Strongly Agree

18. Did you face any technical difficulty/ies while using the e-UNNAT platform?

    a. Yes

    b. No

c. Can't Say

19. If Yes: Specify the challenge?
    a. Lack of Knowledge
    b. Complex Portal Design
    c. Connectivity Issue
    d. Any Other

20. Had you taken help from anyone while availing the service/s through e-UNNAT?
    a. Yes
    b. No
    c. Can't Say

21. If Yes: Specify
    a. Friend
    b. Relative
    c. CSC/Khidmat Centre
    d. Any Other

22. Are you comfortable with availing services through e-UNNAT rather than physical mode?
    a. Yes
    b. No
    c. Can't Say

23. e-UNNAT portal is user friendly and easy to use?
    a. Strongly Disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree

24. Language of e-UNNAT portal is easy to understand?
    a. Strongly Disagree

b. Disagree

c. Neutral

d. Agree

e. Strongly Agree

25. Lack of awareness about e-UNNAT hinders its effectives?

a. Strongly Agree

b. Agree

c. Neutral

d. Disagree

e. Strongly Disagree

26. Issues related to privacy and data security are prevalent with the use of e-UNNAT?

a. Strongly Agree

b. Agree

c. Neutral

d. Disagree

e. Strongly Disagree

27. How likely you will recommend the use of e-UNNAT to others in Kulgam District?

a. Very Unlikely

b. Unlikely

c. Neutral

d. Likely

e. Very Likely

28. What recommendations would you make to improve the accessibility, usability, and effectiveness of e-UNNAT?

a. Providing user-friendly tutorials or guides

b. Offering multi-language support

c. Conducting awareness campaigns

d. Strengthening data security measures

e. Other (please specify)

29. Have you used any other portal for online services other than e-UNNAT?

     a. Yes

     b. No

     c. Can't Say

30. If Yes: Specify the level of satisfaction with the other portal?

     a. Highly Dissatisfied

     b. Dissatisfied

     c. Neutral

     d. Satisfied

     e. Highly Satisfied

Please suggest some measures for improving the e-governance mechanism most importantly e-UNNAT in District Kulgam?

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Dear Respondent:

I am a Ph.D. scholar conducting research on **"THE CHANGING TRENDS OF E-GOVERNANCE UNDER E-UNNAT: A STUDY OF DISTRICT KULGAM (J&K)"** from Lovely Professional University, Punjab. The information being sought from you is for research purpose only. So you are requested to express your views freely and frankly in a neutral and unbiased manner. The information supplied by you shall be kept confidential.

Objectives of the Study

1. To investigate the evolution of e-UNNAT governance initiative in public administration with special reference to district Kulgam

2. To analyze the role of e-UNNAT in providing public service delivery in district Kulgam

3. To evaluate the challenges faced by the citizens in availing the public services under e-UNNAT

4. To suggest effective measures for enhancing the e-governance mechanism in the region

Note:

All the questions in this questionnaire have been designed as per the requirements of research objectives. Kindly contribute to the study in impartial and neutral manner by giving your opinions and suggestions for strengthening the e-governance mechanism in the UT of Jammu and Kashmir.

Profile of Key Respondents

Name	
Gender	
Age	
Education Level	
Designation/Position	

1. Can you provide an overview of the e-UNNAT program in Kulgam district?

2. What are the primary objectives of introducing the e-UNNAT program in the district?

3. What are the factors responsible for the development of e-UNNAT in the region?

4. What kinds of services are being offered under e-UNNAT in the district?

5. How easy or difficult is it for residents to access and use services under e-UNNAT?

6. What has been the public response to the program in Kulgam?

7. Have there been any notable improvements in service delivery due to e-UNNAT?

8. Are there any barriers to accessing e-UNNAT services (e.g., digital literacy, internet access)?

9. What challenges have you encountered during the implementation and execution of the e-UNNAT program?

10. How has the e-UNNAT program changed governance practices in the district?

11. What impact has e-UNNAT had on transparency and accountability in governance?

12. Are there any measurable outcomes from the program in terms of efficiency and effectiveness?

13. How do you envision the future of e-governance in Kulgam and Jammu & Kashmir as a whole?

14. What additional support or resources would be needed to improve e-UNNAT in Kulgam?

15. What feedback have you received from residents or stakeholders regarding e-UNNAT?

16. How do you personally assess the success of the e-UNNAT program in Kulgam?

Please suggest some measures for improving the e-governance mechanism most importantly e-UNNAT in District Kulgam?

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APPENDIX III: INTERVIEW FOR KHIDMAT CENTERS

Dear Respondent:

I am a Ph.D. scholar conducting research on **"THE CHANGING TRENDS OF E-GOVERNANCE UNDER E-UNNAT: A STUDY OF DISTRICT KULGAM (J&K)"** from Lovely Professional University, Punjab. The information being sought from you is for research purpose only. So you are requested to express your views freely and frankly in a neutral and unbiased manner. The information supplied by you shall be kept confidential.

Objectives of the Study

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3. To evaluate the challenges faced by the citizens in availing the public services under e-UNNAT

4. To suggest effective measures for enhancing the e-governance mechanism in the region

Note:

All the questions in this interview schedule have been designed as per the requirements of research objectives. Kindly contribute to the study in impartial and neutral manner by giving your opinions and suggestions for strengthening the e-governance mechanism in the UT of Jammu and Kashmir.

Khidmat Centre Location & Number of Key Respondents

Khidmat Centre Location	
Number of Key Respondents	

1. Can you provide a brief overview of the e-UNNAT program and its objectives in Kulgam district?

2. What services are currently being offered under the e-UNNAT program in your area, and how do they benefit the local population?

3. In your experience, how accessible are e-UNNAT services to the residents of Kulgam? Are there any specific challenges in terms of accessibility?

4. How has the introduction of e-UNNAT impacted the efficiency and effectiveness of government service delivery in Kulgam?

5. What are the key factors that have influenced the success or challenges of implementing the e-UNNAT program in this region?

6. Have you observed any changes in public engagement or response since the launch of the e-UNNAT program?

7. What role does digital literacy play in the adoption of e-UNNAT services, and how can it be improved in the region?

8. What are the main challenges you face in delivering e-UNNAT services, especially in remote or underserved areas?

9. Can you discuss the impact of e-UNNAT on governance practices in Kulgam, particularly in terms of transparency and accountability?

10. What measures would you suggest to further enhance the e-UNNAT program and e-governance in Kulgam to ensure better service delivery and public participation?

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