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PROSPECTS AND CHALLENGES OF E-GOVERNANCE IMPLEMENTATION IN THE DISTRICT JUDICIARIES OF NORTHEAST INDIA

Dr. Pranab Duara[1*], Prof. (Dr.) Marina B. Marwein[2]

[1,2] Martin Luther Christian University, Shillong, Meghalaya, India

Abstract
The Indian judiciary is undergoing a rapid digital transformation under the e-Courts Mission Mode Project (MMP), aimed at improving transparency, accessibility, and efficiency in court processes. While national implementation has progressed in different stages Phase I (2007–2015) focused on infrastructure, Phase II expanded citizen services, and the ongoing Phase III (2023–2027) targets fully digital, paperless courts. The Northeastern region of India faces distinct challenges due to its geographic, infrastructural, and linguistic realities. This study adopts a mixed-method approach to assess e-governance adoption in the district judiciary of Northeast India, combining quantitative survey data from 105 litigants and 63 court officials with qualitative insights from open-ended responses. Findings reveal high awareness and positive perceptions of e-governance among both groups, with reported benefits including reduced case processing times, improved access to information, and convenience through virtual hearings. However, technical glitches, inadequate infrastructure, language barriers, and limited digital literacy impede optimal usage. Court officials reported significant time savings and workflow improvements, though reliance on paper processes and inconsistent security practices persist. The study highlights the need for localized language support, targeted capacity building, enhanced infrastructure, and robust cybersecurity frameworks to ensure that e-Courts fulfill their promise of inclusive and efficient justice delivery in the Northeastern region of India.

Keywords: e-Governance, District Judiciary, e-Courts, Prospects, Challenges, Northeast India

1. Introduction

The e-Courts Mission Mode Project has been a major step in modernizing India's judiciary, aiming to improve efficiency and access through digital transformation. Basu and Jha (2024) examine ICT adoption within the judiciary, noting both progress and challenges, which is useful for understanding the groundwork in regions like Assam. Mahibha and Balasubramanian (2020) analyze the e-Courts Information Systems, highlighting their role in improving case management while pointing out integration issues. Gopal (2024) situates the e-Courts project within broader judicial reforms, emphasizing its contribution to enhancing access to justice. Earlier, Verma (2018) described the project as a "giant leap" for India's judiciary, focusing on its initial infrastructure and implementation. Together, these studies trace the evolution of e-governance in India's courts from its early stages to its growing regional impact.

E-governance initiatives in Assam and the North-East show both progress and persistent challenges. Choudhury (2022) found that while digital projects improved service delivery, poor connectivity and low digital literacy still limit access. Sharma (2023) highlighted that the E-Prastuti project increased transparency but faced scalability and maintenance issues. Damle (2020) revealed data inconsistencies in the national e-Courts system that hinder efficient judicial analytics. A regional review (Chetia, 2016) noted that power shortages, weak infrastructure, and limited manpower continue to slow digital transformation in the judiciary. Together, these studies emphasize the need for stronger infrastructure and capacity building to make e-justice more inclusive in the North-East.

India's judicial system is currently undergoing a significant digital transformation through the implementation of the national e-Courts Mission Mode Project (MMP), which is guided by the National Policy and Action Plan for ICT Enablement of the Indian Judiciary (2005). Since its inception in 2007, the project has been rolled out in successive phases. Following the initial phase focused on foundational computerization and a second phase aimed at expanding citizen-centric services, the ongoing Phase III (2023–2027) introduces a comprehensive framework for delivering "digital courts as a service". With an allocated budget of ₹7,210 crore, this phase prioritizes inclusive access, transparency, data-driven decision-making, paperless judicial processes, and

enhanced integration across components of the broader justice ecosystem (Department of Justice, 2025; e-Committee, Supreme Court of India, 2023).

In the context of the Northeastern region comprising Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim, the implementation of e-governance in the district judiciaries faces challenges. These include difficult terrain, inadequate connectivity, linguistic heterogeneity, and institutional capacity limitations. However, these very challenges underscore the transformative potential of digital judicial services in the region. Tools such as remote hearings, online filing systems, real-time access to case data, and electronic notices can significantly reduce the costs and delays associated with accessing formal justice mechanisms, thereby enhancing legal inclusion for geographically and socially marginalized populations (Assam Judicial Dept., n.d.).

The concept of e-governance in the Indian judiciary has evolved over the past two decades through phased interventions. The cornerstone of this transformation is the e-Courts Mission Mode Project (MMP), launched under the National Policy and Action Plan for ICT Enablement of the Indian Judiciary (2005). This policy framework envisioned leveraging Information and Communication Technology (ICT) to enhance transparency, efficiency, and accessibility in court systems across India (e-Committee, 2023).

The Northeast India poses both unique challenges and vital opportunities in implementing e-governance. The region suffers from topographical barriers, digital infrastructure gaps, and linguistic diversity. These factors complicate judicial modernization (Assam Judicial Dept., n.d.). However, they also present strong justifications for digital inclusion online filing, remote hearings, and e-services can dramatically reduce litigation costs and travel burdens (Gauhati High Court, 2025).

Research emphasizes the critical role of institutions like the Gauhati High Court and the High Court of Meghalaya, which have been instrumental in deploying e-filing, e-payment, and online certified copy services, along with real-time dashboards such as the National Judicial Data Grid (NJDG) and Virtual Justice Clocks (Gauhati High Court, 2025; NIC, 2025). These tools aid not only in public access but also in performance monitoring and backlog management (DoJ, 2025).

Multiple studies suggest that the adoption of virtual courts and integration with the Inter-Operable Criminal Justice System (ICJS) is particularly beneficial in the Northeast India. The ICJS enables seamless data exchange among law enforcement, judicial, and correctional institutions, essential in cross-border and insurgency-prone areas (MHA, 2024; PIB, 2023). Notably, Virtual Courts, initially launched for minor traffic violations have proven their efficacy in reducing physical appearances and expediting case resolution, especially in geographically remote districts (e-Committee, 2025).

Despite these advancements, numerous implementation challenges remain. Unreliable electricity and limited broadband access continue to disrupt digital hearings in interior districts (DoJ, 2025). Moreover, a lack of multilingual user interfaces and the dominance of English in portals alienate vernacular litigants (High Court of Meghalaya, 2024).

The literature also emphasizes the importance of changing management and workflow re-engineering. Effective digital transformation goes beyond hardware deployment; it requires training, legal harmonization across civil and criminal jurisdictions, and a cultural shift in how judicial actors perceive and engage with digital tools (Assam Judicial Dept., n.d.; e-Committee, 2023). Security and privacy concerns further complicate the digital push, especially as sensitive personal and land records migrate to cloud platforms (MHA, 2024).

To address these challenges, scholars and institutional reports suggest for expanding e-Sewa Kendras with local language support, strengthening solar and backup power for court premises, and implementing bandwidth-adaptive hybrid hearings in low-connectivity areas (eCourts India Services, 2025; DoJ, 2025). Furthermore, integrating performance analytics via NJDG dashboards can help track pendency and disposal rates while promoting transparency (NIC, 2025).

2. Methodology

This study adopts a mixed-method research design, integrating both primary and secondary data sources to provide a comprehensive understanding of e-governance implementation in the judiciary. The primary component consists of quantitative and qualitative data collected through structured questionnaires administered to two stakeholder groups: litigants (clients) and court officials.

The study was conducted in Kamrup Metropolitan district of Assam, which houses the principal seat of the Gauhati High Court and a network of judicial courts, making it a representative site for examining e-governance implementation in the district judiciaries of Northeast India.

A total of 168 respondents participated in the primary survey, comprising:

- 105 litigants (clients) – individuals directly engaged with court processes, either as petitioners, defendants, or representatives.
- 63 court officials – including clerks, stenographers, and administrative personnel involved in day-to-day judicial operations.

Participants were selected using a stratified random sampling technique to ensure representations from sections of stakeholders.

Two separate semi-structured KAPE (Knowledge, Aptitude, Practice, Expectation) questionnaires were developed, one for clients and one for officials. Each questionnaire contained sections on:

- Awareness and usage of e-governance services
- Perceived benefits and efficiency gains
- Challenges and obstacles faced
- Suggestions for improvement

The client questionnaire also included questions on accessibility, language preferences, and trust in online systems, while the official questionnaire focused more on workflow efficiency, time savings, and technical readiness.

Quantitative data from the surveys were entered into SPSS (Statistical Package for the Social Sciences) application and processed to identify trends and patterns. Results are presented through:

- Tables summarizing key numerical findings
- Narrative analysis to explain the implications of the results in plain language

Qualitative comments from open-ended responses were coded thematically to highlight recurring concerns, suggestions, and noteworthy insights. The findings are organized into two main subsections – clients' perspectives and court officials' perspectives, to preserve the distinct viewpoints of each stakeholder group.

3. Results

3.1 Quantitative survey of client

A quantitative survey was conducted among clients to gather measurable data on their perspectives, involvement, and challenges related to the implementation of e-governance in the judiciary.

3.1.1 Socio demographic survey of client

Table 3.1: Socio demographic profile of clients

Socio demographic profile	Category	Number	Percentage
Area	Rural	24	22.9
	Urban	81	77.1

Gender	Male	47	44.8
	Female	58	55.2
Age group (years)	28-35	26	24.8
	36-45	47	44.8
	Above 45	32	30.5
Educational level	Graduate	55	52.4
	Post Graduate	50	47.6
Marital status	Single	16	15.2
	Married	89	84.8
Occupation	Government	38	36.2
	Private	31	29.5
	Business	36	34.3

The demographic data at Table 3.1, reveals 77%, i.e. more than three-fourths of the clients reside in urban areas, while females constitute 55%, Age-wise, the 36-45years age group is the largest, comprising 45%, followed by those above 45 years with 32%, and the 28-35 age group with 25%. Of course, the clients may be representing their entire families in some of the disputes.
Educational qualifications show that 52% graduates, while 48% have postgraduate degrees. Regarding marital status, the data highlights that 85% are married, while 15% are unmarried.
Analyzing occupational distribution, government employees with 36%, followed by business owners with 34% and private-sector employees with 30% are found.
The types of cases pending in the courts are shown in Table 3.2

Table 3.2: Types of case pending in court(s)

Types of cases pending in court(s)	**Number**	**Percentage**
Civil dispute	16	15.2
Criminal case	38	36.2

Consumer dispute	19	18.1
Family dispute	17	16.2
Property dispute	14	13.3
Employment dispute	1	1.0
Total	**105**	**100.0**

The types of cases show criminal cases, accounting for 36% (95 % Confidence Interval: 27%-45.4%) of the total. This is followed by consumer disputes at 18% and family disputes at 16%. Civil dispute cases make up 15%, while property disputes account for 13%. The least common category is employment disputes, representing only 1%.

3.1.2 Clients' awareness, attitudes, and experiences

This section presents findings from the survey focused on assessing clients' awareness, attitudes, and experiences related to the services provided. The objective was to understand how informed clients are, how they perceive the services, and what their actual interactions have been like.

E-governance services used are further amplified in Table 3.3

Table 3.3: E-governance services used

E-governance services used	Number	Percentage
Case filling	30	28.6
Case status checking	41	39.0
Payments	34	32.4
Total	**105**	**100.0**

Table 3.3 provides an overview of the different e-governance services used and among the services, 39% (95%Confidence Interval: 29.7%-48.3%) use the case status check, 32% utilize the payments service, and 29% use the case filing service.

Table 3.4: Impact of e-governance

Impact of e-governance	Number	Percentage
It makes the judiciary less effective	33	31.4
It marginally increases efficiency but adds new problems	40	38.1
It significantly enhances efficiency	32	30.5
Total	**105**	**100.0**

38% (95% Confidence Interval :28.8%-47.4%), believes that e-governance marginally increases efficiency but adds new problems, 31%, feels that e-governance makes the judiciary less effective and 31% think that e-governance enhances efficiency.

3.1.3 Satisfaction with e-governance services by the clients

The satisfaction with e-governance services by the clients are presented in Table 3.5.

Table 3.5: Satisfaction with e-governance services (n=105)

Satisfaction with e- governance services	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Satisfied with the e-governance services provided by the	59 (56.2 %)	38 (36.2 %)	8 (7.6 %)	0	0
E-governance has improved the efficiency of judiciary services.	46 (43.8 %)	48 (45.7 %)	11 (10.5 %)	0	0
Recommending e-governance services to others.	59 (56.2%)	33 (31.4%)	13 (12.4%)	0	0

56% strongly agree and 36% agree that they are satisfied with the e- governance services provided by the judiciary, with only 8% unsure. 44% strongly agree and 46% agree, with 11% not sure that the digital transformation has enhanced efficiency.

In terms of advocacy, 56% strongly agree and 31% agree that they would recommend e-governance services to others, while 12% remain uncertain. The perception of quicker case resolution due to e-governance is also supported, with 47% strongly agree and 41% agree.

Regarding confidence in the accuracy and reliability of e-governance systems, 46% as strongly agree and 40% agree, though 14% are unsure. Similarly, regarding the belief that obstacles in e-governance services are serious but resolvable, 46% strongly agree and 38% agree.

More than half i.e. 51% strongly agree that the security of sensitive information might be jeopardized, and 41% agree.

3.1.4 Challenges and barriers in e-governance implementation in the judiciary

The difficulties and issues with present e-governance are displayed in Table 3.6.

Table 3.6: Issues with present e-governance services

Issues with present e-governance services	Number	Percentage
Limited digital literacy	62	59.0
Inadequate infrastructure	50	47.6
Technical glitches and downtime	65	61.9

Language barriers	49	46.7
Limited user support	60	57.1

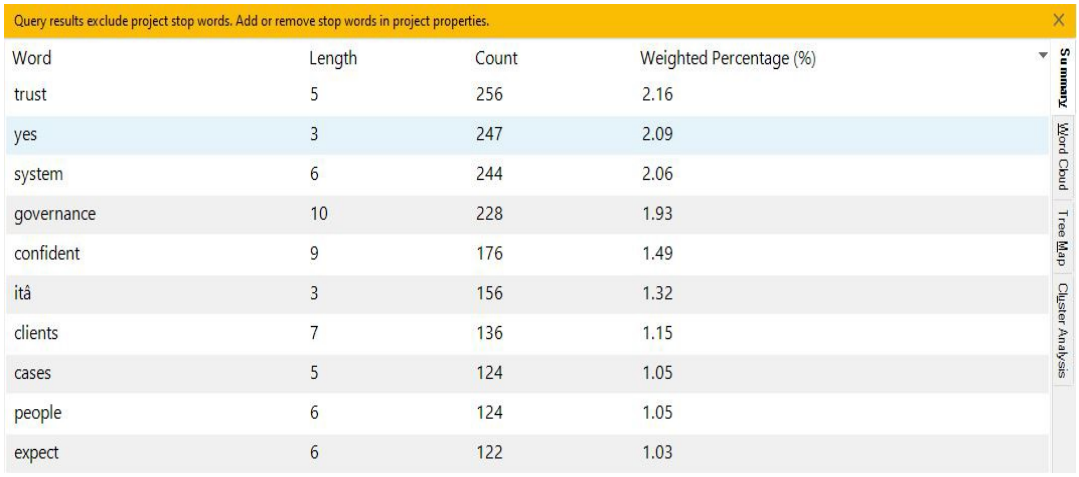
The data on issues with present e-governance services shows that technical glitches and downtime are the most commonly reported problem; with 62% and language barriers is 47%.
Types of issues encountered while using e-governance services are described in Table 3.7.

Table 3.7: Types of issues encountered while using e-governance services

Types of issues encountered	**Number**	**Percentage**
Technical issues	40	38.1
User interface problems	29	27.6
Slow response	33	31.4
No response	3	2.9
Total	**105**	**100.0**

The most reported issue is technical issues; experienced by 38.1% (95% Confidence Interval: 28.8%-47.4%), 31 % indicating that delays in system performance or processing speed are also a major issue.
User interface problems such as confusing layouts, unclear navigation, or difficulty accessing specific features were reported by 28% users.

3.2 Qualitative survey of clients


Query results exclude project stop words. Add or remove stop words in project properties.

Word	Length	Count	Weighted Percentage (%)
trust	5	256	2.16
yes	3	247	2.09
system	6	244	2.06
governance	10	228	1.93
confident	9	176	1.49
itâ	3	156	1.32
clients	7	136	1.15
cases	5	124	1.05
people	6	124	1.05
expect	6	122	1.03

Figure 3.1: Summary table

Figure 3.1 puts concrete numbers behind the themes that surfaced in our interviews. It lists the ten words participants used most often, along with how frequently each one appeared and its share of the total text. Three words “trust,” “yes,” and “system” sits at the top. The most frequently occurring words indicate key themes in the discussion. "Trust" is the most common term, emphasizing the

importance of reliability and confidence in governance and systems. The high Number suggests that users or stakeholders are particularly concerned with whether the system is trustworthy and transparent. Similarly, "yes" and "system" further reinforces discussions about acceptance, belief, and operational efficiency.
Other considerable terms, including "governance," "confident," "cases," and "expect," highlight that the focus is on trust in governance, confidence in operational frameworks, and case management. The frequent mention of "cases" suggests that case handling is a key issue, possibly in legal, administrative, or governmental contexts.
Overall, the data suggests that stakeholders prioritize trust, system reliability, and governance efficiency. The strong emphasis on trust implies that ensuring transparency, accountability, and effective case management is essential for building confidence in governance structures.

3.3 Quantitative survey of court officials

A quantitative survey was conducted among court officials to gather measurable data on their perspectives, involvement, and challenges related to the implementation of e-governance in the judiciary.

3.3.1 Socio demographic survey of court officials

Socio demographic profile of the court officials is presented in Table 3.8.

Table 3.8: Socio demographic profile of court officials

Socio demographic profile	Category	Number	Percentage
Gender	Male	45	71.4
	Female	18	28.6
Age group	28-35	13	20.6
	36-45	28	44.4
	Above 45	22	34.9
Educational level	Graduate	49	77.8
	Postgraduate	14	22.2
Marital status	Single	10	15.9
	Married	53	84.1
Living with family	No	8	12.7
	Yes	55	87.3

Language known	Assamese, English and Hindi	63	100.0
Designation	Bench Clerk	14	22.2
	Lower Division Assistant	31	49.2
	Stenographer	8	12.7
	Upper Division Assistant	10	15.9

The table presents demographic characteristics of a sample group (n=63), covering gender, age, education, marital status, living arrangements, religion, and languages known. Below is a detailed breakdown of each category.

The gender distribution reveals that males with 71 % and females with 29. In terms of age distribution, the 36-45 age group is 44%, followed by those above 45 (35%) and 28-35 (21%). The majority of respondents (79%) are aged 36 and above.

Regarding educational level, graduates with 78%, while postgraduates constitute 22%. The marital status data shows that married individuals is 84% while unmarried make up 16%.

With respect to living arrangements, 87% lives with family, while 13% live alone. Regarding religion and language 100%) identify as Hindu and are fluent in Assamese, English, and Hindi.

The position of bench clerk is held by 14 individuals, representing 22.2% of the total respondents. The designation of lower division assistant accounts for the highest number of respondents constituting 49.2% of the overall respondents. The role of stenographer is occupied by 8 individuals, which corresponds to 12.7% of the total respondents. Upper division assistant position includes 10 individuals, amounting to 15.9% of the total respondents.

Durations of service of all the court officials surveyed are given in Table 3.9.

Table 3.9: Service duration of all court officials

Duration of services court official	**Number**	**Percentage**
1 year	3	4.8
2 years	3	4.8
3 years	5	7.9
4 years	4	6.3
5 years	5	7.9
>5 years	43	68.3

Total	**63**	**100.0**

The table provides an overview of the duration of services among court officials, categorized by the number of years served. It highlights the frequency and percentage of officials within each service duration bracket.

A small portion of court officials have relatively short tenures. Specifically,4.8% of officials have served for only 1 year, and another 4.8% have served for 2 years. The proportion slightly increases with longer service, with 7.9% having served for 3 years and 6.3% for 4 years. Similarly, 7.9% of officials have completed 5 years of service.

The most notable observation is that a large majority of court officials 68.3% (95% Confidence Interval 56.8%-79.1%) have served for more than 5 years. This indicates a high level of experience and long-term commitment within the workforce.

In total, the data accounts for 63 court officials, providing a complete picture of service duration distribution. The high percentage of officials with over five years of service suggests a stable and experienced group in the judicial system.

3.3.2 Court officials' awareness, attitudes, and experiences

The Court officials' awareness, attitudes, and experiences are presented in the tables below

Table 3.10: Familiarity with e-governance technology

Familiarity with e-governance	**Yes**	**No**
Familiarity with the e-governance technology and procedures	62 (98.4%)	1 (1.6%)
Belief about whether e-governance has improved work efficiency	62 (98.4%)	1 (1.6%)
Observations regarding faster case	62 (98.4%)	1 (1.6%)
Problems or obstacles you are aware of present in the e-governance services	62 (98.4%)	1 (1.6%)
Encountered any obstacles while using e-governance services	62 (98.4%)	1 (1.6%)

Table 3.10 indicates the familiarity with the e-governance technology. 98% reported being familiar with e-governance technology and procedures, 98% observed faster outcomes, reinforcing the belief that digital systems have streamlined judicial processes.

Respondents also demonstrated a strong awareness of existing problems or obstacles in e-governance services, with 98% acknowledging them. Moreover, the same number of participants confirmed that they have personally encountered obstacles while using these services, pointing to common and recurring challenges despite the system's overall effectiveness.

Regarding the problems and obstacles in e-governance services, the data shows that 98% of respondents are aware of existing issues, and the same percentage have personally encountered them.

Table 3.11: Use of e-governance systems in daily court work

Use of e-governance systems in daily court work	Number	Percentage
Daily for all works	32	50.8
Never	6	9.5
Occasionally when required	25	39.7
Total	**63**	**100.0**

Frequent use of e-governance systems is reported by 51% (95% Confidence Interval: 38.5%-63.1%) who use the system daily for all works. Occasional use is reported by 40% who use e-governance systems occasionally when required. Minimal use is noted by 10% who "never" use e-governance systems. With more than 90% using the e-governance system either daily or occasionally, there is strong progress in digital adoption within the judiciary.
The e-governance applications used in daily court work are shown in Table 3.12.

Table 3.12: E-governance applications used in daily court work

E-governance applications used in daily court works	Number	Percentage
Case Information System (CIS) only	1	1.58%
CIS + e-Filing + e-Payment	16	25.4%
CIS + Remote hearing + Online RTI	17	27.0%
Virtual court related combinations	21	33.3%
Others (non-CIS-based combinations)	8	12.69%
Total	**63**	**100.0**

The table presents data on the usage of various e-governance applications in daily court operations, categorized by their level of integration and digital service adoption.
To begin with, the CIS-only category reflects the most basic use of the case information system without any additional digital services. This is observed in just 1 instance, accounting for 1.58%, indicating minimal standalone use of CIS.
The combination of CIS with e-filing and e-payment is more prevalent, appearing in 16 cases, which constitutes 25.4% of the total. This suggests a notable move toward digitalization of case filing and fee transactions.

Further, CIS integrated with remote court hearings and online RTI facilities is seen in 17 instances, making up 27.0%. This highlights the courts' growing reliance on virtual platforms for hearings and public information access.

The most widely used category is virtual court-related combinations, with 21 instances, accounting for 33.3% (95% Confidence Interval: 21.5%-45%) of the total. This reflects a strong shift toward virtual court mechanisms, especially for cases like traffic challans and remote proceedings.

Other non-CIS-based combinations are recorded in 8 cases, representing 12.69%. These likely include independent use of e-filing, e-payment, or virtual court applications without direct linkage to the CIS platform.

The data indicates a progressive trend in the judicial system toward comprehensive digital service adoption, with virtual courts and integrated e- governance tools playing a central role.

3.3.3 Satisfaction with e-governance services by the court official

The satisfaction with e-governance services by the court official are presented in Table 3.13.

Table 3.13: Age group-wise satisfaction

Satisfaction Level	**26–35**		**36–45**		**46–60**	
	Number	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**
Strongly Agree	9.0	69.23	18.0	64.29	11.0	50.0
Agree	4.0	30.77	9.0	32.14	11.0	50.0
Not Sure	0.0	0.0	1.0	3.57	0.0	0.0
Disagree	0.0	0.0	0.0	0.0	0.0	0.0
Total	**13.0**	**100.0**	**28.0**	**100.0**	**22.0**	**100.0**

The satisfaction levels of court officials vary slightly by age group. Among those aged 26–35, a large majority (69.23%) reported “Strongly Agree,” indicating high satisfaction with e-governance services, while the remaining 30.77% selected “Agree.” In the 36–45 group, satisfaction remains high, with 64.29% strongly agreeing and 32.14% agreeing. Interestingly, a small 3.57% in this group selected “Not Sure.” Among officials aged 46–60, satisfaction was evenly split between “Strongly Agree” and “Agree.” Notably, none of the respondents across any age group expressed

disagreement, highlighting a consistent and overwhelmingly positive response toward the judiciary's e-governance services.

3.3.4 Challenges and barriers

The different kinds of methods adopted to resolve problems are given in Table 3.14.

Table 3.14: Different kind of methods adopted to resolve problems

Different kind of methods to resolve problems	Number	Percentage
Contacted support	34	54.0
Tried again later	18	28.6
Gave up	11	17.5
Total	**63**	**100.0**

This table presents how court officials attempted to resolve issues encountered while using e-governance services. 54 % (95% Confidence Interval: 41.7%-66.3%) usually contacted support for help. 29% chose to try again later, which could imply that some users face temporary technical glitches or connectivity issues that get resolved over time. 18% gave up entirely when encountering issues.

3.4 Qualitative survey of court officials

Query results exclude project stop words. Add or remove stop words in project properties.

Word	Length	Count	Weighted Percentage (%)
governance	10	80	3.21
expect	6	72	2.89
trust	5	58	2.33
yes	3	57	2.29
believe	7	47	1.89
public	6	44	1.77
learning	8	41	1.65
curve	5	37	1.49
departments	11	37	1.49
time	4	35	1.41

Summary | Word Cloud | Tree Map | Cluster Analysis

Figure 3.2: Summary table

Figure 3.2 presents the word-frequency statistics generated in NVivo 15, listing the ten most common content words in the interview corpus alongside their raw counts and weighted percentages of the total token pool. The word Number analysis highlights that the most frequently occurring term is "governance", followed closely by "expect" and "trust". This suggests that governance is the central theme of discussion, with strong emphasis on public expectations and trust in the system. The frequent mention of "expect" indicates that stakeholders whether citizens, government officials, or organizations have specific expectations from governance structures. This could relate to transparency, efficiency, fairness, or responsiveness in decision-making processes. Meanwhile, the

prominence of "trust" suggests that public confidence in governance is a major concern, possibly indicating that people seek reliable and accountable systems.
Beyond these top three words, other important terms such as "public," "learning," "curve," and "departments" indicate that governance discussions are closely tied to public involvement, institutional learning, and administrative structures. The presence of "learning" and "curve" suggests that there may be a steep learning process associated with understanding or adapting to governance mechanisms. This could point to challenges in implementing new policies, digital governance tools, or bureaucratic procedures. Additionally, the mention of departments highlights the role of various government or institutional bodies in shaping governance processes, potentially indicating discussions about interdepartmental coordination, efficiency, and accountability.
The presence of "time" as a frequently occurring term suggests that efficiency and speed in governance processes are key concerns. This could imply dissatisfaction with bureaucratic delays, slow policy implementation, or the need for faster case resolutions, decision-making, and service delivery. Whether in legal cases, resource allocation, or public service accessibility, time efficiency appears to be a recurring issue that stakeholders want to address. Overall, the number analysis underscores the importance of trust, expectations, efficiency, and learning in the governance landscape.

4. Discussion

The findings from both quantitative and qualitative surveys of clients and court officials reveal key insights into the socio-demographic composition, service usage patterns, satisfaction levels, and perceived challenges in implementing e-governance within the judiciary.

4.1 Clients' perspectives

The socio-demographic profile of clients (Table 3.1) shows that the majority (77.1%) reside in urban areas, with a slightly higher representation of females (55.2%) than males (44.8%). The age distribution indicates that middle-aged clients (36–45 years) constitute the largest group (44.8%), followed by those above 45 years (30.5%). The high level of educational attainment with 52.4% graduates and 47.6% postgraduates implies that the client base is relatively well-educated, which could facilitate digital adoption. Moreover, the high percentage of married individuals (84.8%) may reflect family-related legal concerns. Occupationally, government employees (36.2%), business owners (34.3%), and private employees (29.5%) are almost evenly represented, suggesting a broad occupational reach.
Case type distribution (Table 3.2) reveals that criminal cases dominate (36.2%), followed by consumer disputes (18.1%), family disputes (16.2%), and civil disputes (15.2%). Property disputes account for 13.3%, while employment disputes are rare (1%). This composition suggests that e-governance services must accommodate diverse legal needs, with a significant proportion involving criminal and consumer matters.
In terms of service usage (Table 3.3), case status checking (39%) is the most commonly used e-governance service, followed by payments (32.4%) and case filing (28.6%). This indicates that while basic information access is well-utilized, active case initiation through e-filing remains relatively less common.
Perceptions of e-governance efficiency (Table 3.4) are mixed, 38.1% believe it marginally increases efficiency but introduces new problems, while 31.4% feel it makes the judiciary less effective, and 30.5% report significant efficiency gains. This reflects a cautious optimism, tempered by concerns about operational challenges.
Satisfaction metrics (Table 3.5) show strong approval, with over 90% agreeing or strongly agreeing that they are satisfied with e-governance services. The willingness to recommend these services is

equally high, suggesting positive word-of-mouth potential. However, concerns about security risks are notable, with 51% strongly agreeing and 41% agreeing that sensitive information might be compromised.

Challenges identified (Tables 3.6 and 3.7) underscore significant barriers: technical glitches (61.9%), limited digital literacy (59%), inadequate infrastructure (47.6%), and language barriers (46.7%). User interface difficulties (27.6%) and slow response times (31.4%) further impede usability.

Qualitative themes (Figure 3.1) emphasize "trust" as the most recurrent term, highlighting the centrality of reliability and transparency in client perceptions. Other key terms "system," "governance," and "cases" point to the importance of operational efficiency and case management.

4.2 Court officials' perspectives

The socio-demographic profile of court officials (Table 3.8) shows a male-dominated workforce (71.4%), with the majority (79.3%) aged 36 and above. Most are graduates (77.8%) and married (84.1%), and nearly all live with family (87.3%). The workforce is linguistically versatile, with all respondents fluent in Assamese, English, and Hindi, an asset for multilingual service delivery.

Service tenure data (Table 3.9) indicates that 68.3% have over five years of experience, reflecting a stable and experienced workforce, which can aid in consistent implementation of digital systems.

Familiarity with e-governance technology (Table 3.10) is almost universal (98.4%), and the same proportion acknowledge both improved work efficiency and the presence of obstacles. This dual recognition suggests a realistic appraisal of the system's benefits and shortcomings.

Usage patterns (Table 3.11) show that 50.8% use e-governance systems daily, 39.7% use them occasionally, and only 9.5% never use them. The integration of applications (Table 3.12) reflects advanced adoption, with virtual court-related combinations (33.3%) being the most common, followed by CIS integrated with remote hearings and online RTI (27%). Minimal standalone CIS use (1.58%) indicates that most officials are engaging with multi-feature platforms.

Satisfaction levels (Table 3.13) are uniformly high, with no recorded disagreement. Younger officials (26–35 years) report the highest proportion of "Strongly Agree" responses, but satisfaction remains strong across all age groups.

When encountering problems, most officials (54%) contact support (Table 3.14), while others either retry later (28.6%) or give up (17.5%). This highlights the need for efficient, responsive support mechanisms to prevent user drop-off.

Qualitative analysis (Figure 3.2) shows that "governance," "expect," and "trust" dominate discussions, indicating that officials, like clients, place heavy emphasis on trust and system performance. Words like "learning" and "curve" suggest adaptation challenges, while "time" points to concerns over procedural delays.

5. Case studies

5.1 Assam and the Gauhati High Court e-Services Ecosystem

Under the leadership of the Gauhati High Court whose jurisdiction extends to Assam, Nagaland, Mizoram, and Arunachal Pradesh, the region has deployed a growing suite of online judicial services. The Gauhati High Court e-Services portal provides e-filing, e-payment, e-certified copies, online RTI, and cause lists; these services feed into national e-Courts and NJDG dashboards (Gauhati High Court, 2025). The Government of Assam's Judicial Department describes e-Courts as a tripartite initiative (GoI, GoA, Gauhati HC) aimed at infusing IT to reduce pendency and improve transparency at the district level (Assam Judicial Dept., n.d.). Empirical work examining district-level adoption in Assam reports that ICT tools improved file tracking, time-stamping, and administrative coordination, though gaps remain in infrastructure quality and user training. Press and registry statistics show sustained digital uptake even as pendency remains a concern; for

example, as of August 31, 2024, the Gauhati High Court (principal seat plus benches) reported 51,362 pending cases, underscoring the scale at which digital tools must operate (Sentinel Assam, 2024).

5.2 Meghalaya High Court: e-filing, assisted access and citizen tools

The High Court of Meghalaya offers integrated digital services case status lookup, cause lists, virtual court/video conference links, e-payments, e-RTI, and a dedicated e-Filing Services page with manuals and tutorial videos to support advocates transitioning to paperless submissions (High Court of Meghalaya, 2024). A companion Meghalaya High Court mobile app on Android extends access to remote users, aligning with Phase III principles of inclusivity (Meghalaya High Court App, 2023). These citizen-oriented tools complement wider state digitization efforts (e.g., MeghEA in the executive branch) and illustrate how smaller jurisdictions can scale high-touch support user guides, multilingual notices, helplines to overcome first-mile adoption barriers (High Court of Meghalaya, 2024; Meghalaya High Court App, 2023).

5.3 Nagaland district judiciary and e-sewa expansion (Phek example)

District court portals in Nagaland, hosted on the national dcourts.gov.in framework, provide litigant services such as case status search by FIR, party, or case number; downloadable forms; and link-outs to e-filing and virtual courts (District Court Phek, 2025; eCourt India Services Nagaland, 2025). Recent updates from the Phek district judiciary highlight the launch of an "Online e-Services Portal" for the Kohima Bench to enhance efficiency and transparency, alongside messaging that citizens can access health insurance registration and other government facilitation at the court's e-sewa kendra, indicating how judicial ICT nodes are becoming multi-service civic touchpoints in remote tribal districts (District Court Phek, 2025). These developments dovetail with Phase III budget lines for e-sewa kendras, connectivity, and solar back-up key needs in the state's rugged terrain (DoJ, 2025).

6. Conclusion and recommendations

This study demonstrates that e-governance in the judiciary has achieved significant adoption among both clients and court officials, offering improved accessibility, transparency, and efficiency. Clients predominantly urban, well-educated, and digitally capable engage most with case status tracking, while services like e-filing remain underutilized. Satisfaction levels are generally high, yet concerns about data security, technical glitches, and uneven infrastructure persist. Court officials show strong familiarity with e-governance systems and frequent usage, but operational challenges such as technical breakdowns, learning curves, and reliance on support services remain evident. Across both groups, "trust" emerges as a recurring theme, underscoring the importance of system reliability, transparency, and protection of sensitive information.

To maximize the benefits of e-governance in the judiciary, strengthening the digital infrastructure is imperative. Enhancing server capacity, ensuring high network reliability, and reducing downtime will provide a stable foundation for uninterrupted service delivery. Cybersecurity should be treated as a top priority, with advanced encryption, multi-factor authentication, and regular independent audits to safeguard user data and build public trust.

Improving platform usability is equally essential. User interfaces should be intuitive, multilingual, and compatible across devices, with simplified processes for services like e-filing to encourage wider adoption. In parallel, targeted digital literacy programs, especially in rural and semi-urban areas, will equip users with the skills to navigate online platforms confidently, reducing dependency on intermediaries.

Robust support systems should also be institutionalized. A 24/7 helpline, real-time chat assistance, and proactive troubleshooting can help resolve user issues quickly, preventing disruptions from escalating. Moreover, continuous public engagement through awareness campaigns will reinforce

the benefits and security of e-governance, while structured feedback mechanisms will ensure the system evolves in response to emerging needs and technological developments.
By addressing these areas, the judiciary can move beyond basic digital service provision toward a fully integrated, reliable, and trusted e-governance framework that enhances justice delivery for all stakeholders.

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