

RESEARCH ARTICLE

Timely Delivery of Justice Through Indian E-Court Process Integrative Mission Mode: Possibilities And Pathways For 2030

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Abstract

“Justice delayed is Justice denied”.

Indian Judiciary has indeed come a long way as it has been purposive to provide social justice and equality to all. The social orientation has given more focus and directives for Indian courts to function and operate. The Indian population of India has been rising at meteoric rates the challenge prevails to satisfy the needs and wants of 140 crores. E courts have become a functional and operative mechanism in the Indian judiciary. The need for initial development of infrastructure, and facilities, and integrating court cases online is felt more by Judges & lawyers. Indian E court system has reached all parts of India, and we can be happy that it is functional. This research is an investigation into the objectives of E courts to ensure the timely delivery of justice and to find out the challenges associated with it. This study would be exploratory and conclusive. This study would be based on secondary data as the information on the effectiveness of E-court implementation would be evaluated. The strategies for effective implementation of E-court procedures in India will be given as the outcome of this study. The study would also provide an integrative progressive pathway for timely social justice delivery across all sections of India with E courts towards 2030.

Keywords: E court mission project, implementation, challenges, effectiveness of E courts in India, timely social justice delivery in Indian E courts & strategies for 2030

Introduction

The Indian judiciary has been effective in handling millions of judicial issues all over the country. The constitution of India has given the principles of equality and fraternity for all which is ensured by the Indian judiciary. Still and yet we do find that the Chief Justice of India has remarked that 4.7 crore pending cases across the country must be solved. It is also found that the judge ratio Vs Indian population has been very low which has to improve a lot. 87.4% of these cases are pending in subordinate courts and 12% in High courts. It is also found that more than 1,82,000 cases have been pending for the last 30 years. This clearly shows the challenges and problems that are faced by the Indian judiciary. There is a need for timely and faster closure of these cases which would provide equality among all in this country (1).

The Indian government has invested a lot to ensure online digital court solutions which could be integrative as it can also provide timely delivery of judgment of these crores of cases.

In the first two phases of the E court project mission, the government has spent 1690 crores INR for the first two phases as it has invested more than 700 crores for the third phase. The focus of the third phase would include the creation of digital infrastructure and the modernization of Indian court systems to make them more effective and efficient. This modern system would focus on digital record management, a robust system to refer judgment and case laws, security of documents and management, scheduling of cases for judges and advocates & digital remote assistance on judicial issues. Thus, it can provide an overall effective comprehensive systemic, and integrative solution to Indian courts. This paper

will evaluate the overall performance of the E court mission project and its implementation during Phase One and Phase II (2). This paper is an exploration into the effectiveness of the E judiciary system and its long-term implications for Indian citizens towards 2030.

An overall revamp in the Indian judiciary was envisioned in 2005 by Justice Lahati to implement information and communication technology which could improve its performance. A national policy also evolved which could provide integrated solutions as it would make the judiciary very effective and purposive in timely needs. This digital platform would ensure effective tracking of cases in a digital way 24x7 from any nook and corner of the country using even a mobile. The pending matters in the Indian judiciary could be known very easily with this system. The creation of digital databases on various judiciary proceedings across the country could create easy and effective retrieval. An effective management of court resources can also be enabled with this system. The judiciary management practices as the ways and means to evolve proactive Indian judiciary practices using E courts are enabled in this process. This e-court process integrative mode has evolved its principles as it has a long-term vision to connect Indian judiciary practices all over the country. The court proceedings at various levels can be known by common citizens which could also help us understand the process better. The pending court cases could be handled in a faster and more effective way which can ensure timely delivery of justice. This technology by nature would empower and enable all citizens of India to have judiciary access as equality in justice could be ensured in this process. This could also provide justice for all as all citizens would be always provided with equality and justice. This process would integrate all the courts in the country. The judicial system would be given an effective utilization of technology with ICT as it becomes an effective tool for Judges, advocates, and common citizens of this country. The performances of Indian courts could be measured objectively with a quantitative approach. The quality of judgments delivered in a period could also be evaluated. In phase II we could find specific objectives have evolved which include the reach of the justice system

using mobile apps, kiosks, and web portals which ensures speedy & faster judicial delivery for its citizens. The lawyers' scheduling of cases and management is made simpler and easier with E-court proceedings.

Case management for judges is made easier as they can see the proceedings and judgments of previous national and international cases for effective judgments. This also provides a monitoring facility for district and high courts as their performances and outcomes could be monitored by the Supreme Court. State-wise judicial case management, tracking, and judgments could be made available in the portal for the common man and everyone to understand and evaluate as judicial awareness could be increased. Specific plans would be developed for the effective management of the Judicial system across this country. The Indian government has been consistently investing in the third phase of implementation of this E-court mission project and its outcomes towards timely delivery of justice 2030 will be evaluated in this study. The next section will cover the literature review and related aspects of this study.

Literature review

The e-courts have been implemented in two phases infrastructure and implementation as this idea was given by an honorable Supreme Court Judge by 2013, and the implementation has been effective since 2019 only – this literature review is the latest, purposive and focused on the available latest research which has been done in this field. As the idea conception was started only in 2013 in India, the case studies or references since 2002 are not available and hence it is not provided. This literature review is purposive and focused as it deals with only Indian E court implementation and its challenges which are prevailing in the current scenario.

Damle, D. and Anand, T., (2020) had done an evaluative study on E-court implementation and the validity of data with it in Table 1. In this study the total number of pending cases disposed with E courts is given below:

Table 1. An evaluative study on E-court implementation and the validity of data

Year of Filing	Pending Cases	Disposed Cases
<2009	116,647	43,560
2010	20,764	1,530
2011	19,397	1,876
2012	22,915	3,311
2013	33,737	6,892
2014	51,447	12,113
2015	65,506	23,448
2016	76,716	40,358

2017	67,605	65,068
2018	43,515	104,522

It is found in this study after the implementation of E courts in 2009 it is found that a huge number of cases has been disposed of every year. This shows that the E court project and its implementation purpose have been achieved to a larger extent in Table 2. The problem of identification of various cases remains which must be sorted out and a state-wise challenge on the data represented is given below:

Table 2. Problem identification of various sorted out and a state-wise challenge

State	AC-Act	IC-Act	NI-Act	Sr-Act	TP-Act
Andhra Pradesh	2212	2	46345	44	77
Assam	2	-	19180	-	-
Bihar	4152	70	23658	107	11
Chandigarh	2994	-	16410	480	1
Chhattisgarh	5273	-	36987	2589	
DNH at Silvassa	0	-	0	-	-
Delhi	30122		100172	1757	6
Goa	1240	27	17434	266	2
Gujarat	0	327	67609	10785	1
Haryana	4604	-	37031	1836	-
Himachal Pradesh	1953	-	22268	1884	3
Jammu and Kashmir	72	-	10435	55	2
Jharkhand	3	-	36117	2173	4
Karnataka	2155	-	32468	266	5
Kerala	15596	3	22686	424	21
Madhya Pradesh	2950	167	69760	2434	1443
Maharashtra	2793	-	66919	1014	-
Manipur	18	209	2209	1647	29
Meghalaya	-	-	-	-	-
Mizoram	1	-	9	0	-
Orissa	1932	-	21727	3213	12
Punjab	1948	3	43270	581	6
Rajasthan	22393	12	12330	40	4
Sikkim	26	-		48	-
Tamil Nadu	0	-	17638	-	-
Telangana	5472	20	30988	1525	86
Tripura	0	-	2080	-	-
Uttar Pradesh	3307	3	27112	7	2
Uttarakhand	1412	3	3961	5	-
West Bengal	17245	10	19907	26552	12

It is found from this empirical data that challenges on data entry on AC- act, IC Act, NI Act, SR Act, and TP Act do continue. New solutions and strategies have to be evolved to manage these data-oriented challenges in E E-court mission project in India.

Challenges in Act Categorization in E court project implementation

It was found in this study while categorizing the acts there are various challenges as the specific act could not be given which is another drawback in the entire E court process which is given below in Table 3.

Table 3. Summary of Case Tagging Based on Act Names

Description	Count	Percent
Cases with Act names	1,242	90.78%
Cases tagged only under CPC	402	29.38%
Cases tagged only under CrPC	82	5.99%
Cases with missing Act name	126	9.21%
Total number of cases	1,368	-

It found that so many cases are found to be challenging in categorization based on Acts, and there is a need for more effectiveness and prudence in the data management system of Indian E court mission implementation in Table 4.

Table 4. Distribution of Act and Section Field Characteristics

Description	Value	Percent (%)
Missing values for Act field	126	9.21
Sections properly defined	980	71.63
Case type in the section field	124	9.06
Act name and section name given	91	6.65
Improper delimitation	43	3.14
Missing section names	37	2.70

It is evident in E-court implementation that the majority of the problems and issues (72%) arise with sections that have to be properly assigned in Table 5. As this creates a lot of confusion and problems this has to be sorted out in an effective way towards 3rd phase implementation of E courts in India.

Table 5. Year-wise Distribution of Cases with Final Orders, Total Disposed Cases, and Disposal Percentage

Year of Filing	Cases with Final Orders	Total Disposed Cases	Percentage (%)
<2009	20021	116647	17.16
2010	5133	20764	24.72
2011	4574	19397	23.55
2012	5491	22915	23.96
2013	9412	33737	27.10
2014	14559	51447	28.30
2015	17514	65406	26.74
2016	25109	76716	32.73
2017	27409	67305	40.54
2018	17830	43515	40.99
2019	10744	27525	39.03
Total	157526	545774	28.86

It was found that in more than 70% of cases, waiting for final orders contractual dispute data set is not available which has to be effectively managed in Table 6. The performance of courts has increased to an extent as of now with E-court implementation.

Missing values on the date of filing

Table 6. Cases with Missing Date of Filing Across Various States and Their Corresponding Percentages

State	Cases with Missing Date of Filing	Number of Cases	Percentage (%)
Andhra Pradesh	2504	49180	5.0
Assam	10792	19180	56.2
Bihar	4	27998	0.0
Chhattisgarh	50	45849	0.1
Goa	5969	45692	13.0
Gujarat	18352	79400	23.1
Himachal Pradesh	577	23460	2.4
Karnataka	374	53172	0.7
Kerala	579	38680	1.5
Maharashtra	2	71349	0.0
Orissa	1	7387	0.0
Tamil Nadu	5	17635	0.0
Telangana	4	38091	0.0
Tripura	1	4355	0.0
Uttar Pradesh	2	33038	0.0

It is found from the data available all over the country, that Assam has 56% of missing values on the date of filing of cases followed by Gujarat with 23% in Table 7. In fact, in southern states, it has been effective as the date of filing has been appropriately done with zero missing data values which is significant.

Table 7. Cases with Missing Date of Last Hearing by State

State	Cases with missing date of last hearing	Number of cases	Percentage
Andhra Pradesh	2504	49180	5.10%
Assam	10825	19180	56.44%
Bihar	151	27998	0.54%
Chhattisgarh	72	45849	0.16%
Delhi	103	132053	0.078%
Goa	6280	45692	13.74%
Gujarat	18700	79400	23.55%
Haryana	1	28569	0.00%
Himachal Pradesh	581	23460	2.47%

It was found again that missing the last date hearing has been more in Assam followed by Gujarat and Goa. So necessary training and implementation have to be provided for them on these data entries which have to be done with the supervision of advocates and cross-verification by Judges. This would ensure that the Indian judiciary can function in E-governance mode very effectively in the next five years.

Hon'ble Justice D.Y. Chandrachud, Judge, Supreme Court (2022) had framed a committee for SOCIAL JUSTICE COMMITTEE and it had also provided a report on providing an action plan for marginalized sections of people in India. In this report, E courts have been identified as the major factor that could provide social justice for marginalized people of India. The implications and effects of E courts on marginalized sections of people in India have not been researched or evaluated which has to be done. As research gaps do exist on the effective implementation methods and challenges in the E court mission project in India, this research is an attempt in this direction for the first time on these issues and dimensions.

Verma, K., 2018 had done a research study on the e-courts project and its implementation in the Indian context. In this study, it has been stated that the court and its mechanisms and functioning have given a new way forward for the Indian judiciary. In this study, it is stated that technology has been the main focus in E-court functioning as there is a need for training and development across all levels in the Indian judiciary. This study acknowledges the efforts taken by the Indian honorable Supreme Court which is laudable in the right direction. In this study, it is stated that this could be the most effective method that could provide speedy delivery of justice across piled-up cases. In this process usage of the internet and its proceedings is the most important step as its usage has to be known across all stakeholders. There is a need for digitalization and effective management of

Indian cases which is the need of this hour. However, it is evident from this research that the challenges and problems which are associated with e-court implementation and its effectiveness have not been researched or evaluated which has been attempted in this study.

Ahmad, Tabrez (2009) did a research study on Indian E courts and their perspectives and futuristic orientations. In this study, it is stated that there are negative aspects of the Indian judiciary which as the delay in justice and its functioning. It is stated in this study if the judiciary does not take any speedy action, it would take another 300 years to complete all the pending court cases in India. It is also stated in this study that there is a backlog of 30 million cases in Indian courts. So the need for speedy and timely justice is vital as it can make transformations that can provide inclusive justice for all. However, the reduction of pending court cases in Indian courts and the solutions that could be provided by Indian E courts have not been researched or studied which is attempted with this study.

Berutu, L., Lisdiyono, E., Irianto, S. and Berutu, C.A.N., 2022 did a research study on the E-court system and its effectiveness. This process can provide simple and amazing solutions at low cost in the judiciary. This study is an exploration into low-cost justice as this study has been done in Indonesia. In this study, the applications of judicial power in Indonesia and its implications in civil cases have been explored. It was found that there are various implementation and practical issues which do prevail in this judicial system. However, a detailed investigation of the problems and issues that prevail in the Indian judiciary and the ways and means forward with E court implementation has not been studied which is attempted with this study.

This research aims to find out the effectiveness of the implementation of the E-court mission project in India. The study also aims to evaluate the extent of digitalization that has happened in Indian high

courts. The challenges and problems in the effective implementation of the E-court mission project in India will be studied. The strategies and approaches for effective implementation of E court project towards 2030 would be studied also.

Methodology:

Research type

This research would be evaluative and conclusive. This research is evaluative as it evaluates the nature & extent of E E-court mission project in India. This research is conclusive as it would provide strategies and approaches for the effective implementation of E court project in India towards 2030.

Research method

This research will be empirical and quantitative. This research will use secondary data from published reports on E E-court mission project and suggest suitable recommendations.

Problem statement

The Indian judiciary has been effectively delivering justice to the entire Indian population as its reach and effectiveness have always been questioned. The reach for all classes of society with timely justice has always been an issue in this system. The Indian government has spent more than 1600 crores towards e-court project implementation, and it is planning to invest more in its third phase. So there is a need to evaluate the existing e-court systems and procedures which has not been done earlier. The problems in the effective implementation of E courts and the strategies for 2030 remain still. This research is an attempt at these problems and issues for which solutions and strategies would be provided. So, this research is an attempt in this direction for the first time. The futuristic strategies for E courts and timely delivery of justice have not been researched or evaluated which is relevant in the present context. This paper is an attempt at these issues and dimensions which has not been done before.

Significance of this study

This study is significant as it would provide implementation strategies for E courts in India. The nature and extent of implementation of E-court mechanisms in various high courts of India will be determined empirically in this study. The ways to increase the efficiency and effectiveness of providing timely justice for crores of Indians would be suggested. The strategic pathways for E courts towards 2030 will also be provided in this study.

Scope and limitations

1. This study is restricted to Indian E courts only
2. The study is an evaluation of E court mechanisms in stage one and two only

3. The proposed stage III for Indian E courts would also be determined. As this study covers only these aspects and the rest of the dimensions do not form a part of this study

The outcome of the study:

1. This study would evaluate E court and its performances in India
2. The study would provide deterministic pathways in E court implementation towards 2030
3. The challenges and issues in effective E-court implementation towards 2030 will also be assessed.

Objectives

1. To evaluate the nature and extent of E court mission project implementation in India
2. To assess the E court mission project in various high courts of India
3. To provide inputs on the E court mission project by Indian judges
4. To assess the extent of software training provided to Indian judges and advocates
5. To determine the impact of CIS application in Indian E courts
6. To provide suitable strategies and implementation mechanisms for Indian E courts towards 2030.

Hypothesis:

H1: The nature and extent of E court mission project implementation in India has been comprehensive and effective

H2: E court mission project has been implemented in various high courts of India

H3: E courts have been perceived very positively by judges in India

H4: The extent of software training provided to Indian judges and advocates has reached all over India

H5: The impact of CIS application in Indian E courts has ensured effectiveness in Indian judicial systems & practices.

The hypothesis stated above has been tested with causal and associative hypothesis methods. In this method causal factor has an associative relationship which results in the desired impact. The cause in the above hypothesis stated is E court mission project implementation & the associative hypothetical factor is high courts, Indian judges, and advocates where the desired impact could be a positive impact on the Indian judicial system and performances. As the data has been secondary— Inferential analysis has been done and the hypothetical assumptions are verified with strong empirical secondary data from various sources which have been presented in this study.

Hypothesis testing has been done with the **Kolmogorov Smirnov test and the following methods have been used.** The test of significance

method would be used in hypothesis testing to find out the relationship between E court and the timely delivery of justice. The Chi-square test would be used to measure the impact and its strength. Goodness of fit would also be done to measure the nature and extent of E court and its impact on the timely delivery of justice in this work.

Data collection and analysis methods

For this research paper secondary data has been extensively used from various research reports and evaluations on the E-court mission project in India.

Inferential analysis would be used to interpret the data which has been collected and evaluated. The next section will provide a comprehensive empirical analysis of the Indian E court mission project *Empirical analysis of the Indian E court mission project* Rani, Indu(2021) had done PhD dissertation on the Indian E court mission project and its implementation. In this empirical research questions were asked on awareness of the National portal on E courts in Figure 1.

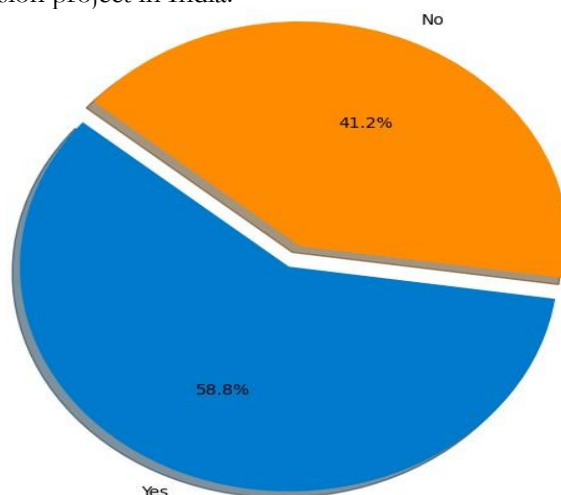


Figure 1. Pie chart representing the question. Are you aware of the eCourts National Portal?

It was found that most of them are aware of the E-court national portal and its usage in Figure 2. Hypothesis on implementation is comprehensive and effective

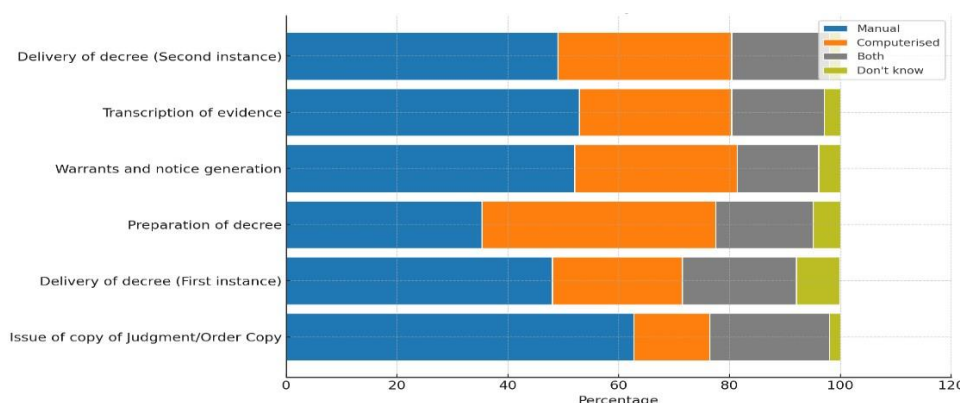


Figure 2. Horizontal bar chart representing, method distribution in Judicial Process Tasks

Although we could find government has invested more than 1690 crores INR it is found that manual usage of court documentation and management is followed. So there is a need to speed up the E-court judiciary which has to be transformed at the functional level across India in Figure 3.

E Court activities and its effectiveness in India

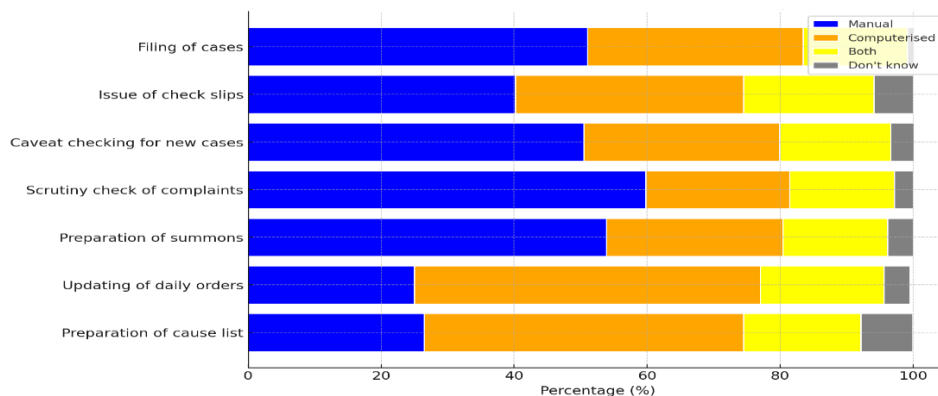


Figure 3. Horizontal bar chart representing, court-related task execution: Manual vs Computerized

In preparation of the cause list and updating of daily orders E courts have been successful to 50% only and the rest of the activities are done almost 30% only. So there is a need to enter the court activities data daily and update which can be purposeful and useful across the country in the next five years by 2030 in Figure 4.

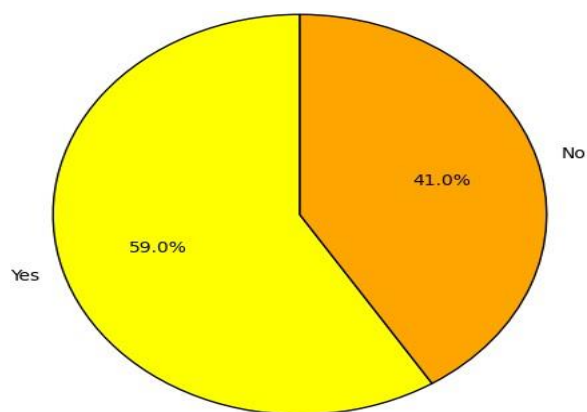


Figure 4. Distribution of responses

It is found that uploading of data in the national judicial data grid has been done only to the extent of 44% which has to be increased.

As the volume and number of cases in the country is increasing on a day-to-day basis this has to be done compulsorily which can provide data access and analysis by 2030.

Hypothesis on implementation of E courts in Indian High Courts

Regular uploading of court data on the national judiciary grid

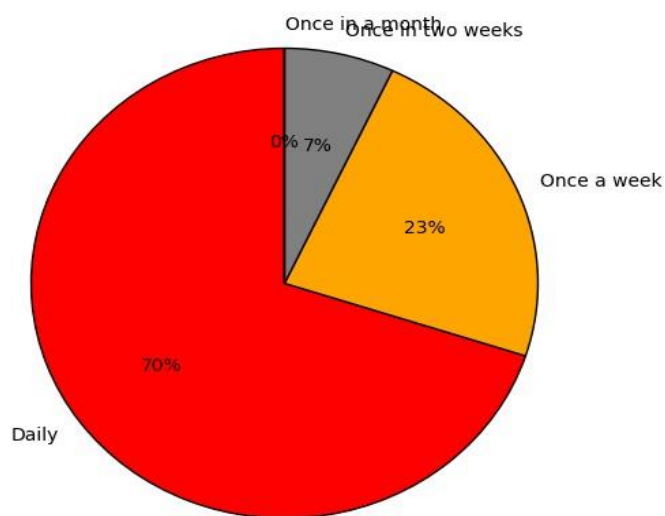


Figure 5. Frequency of the responses

It is also found that court data has been uploaded daily to the extent of just 31% which is marginally low across the country and must improve a lot in Figure 5.

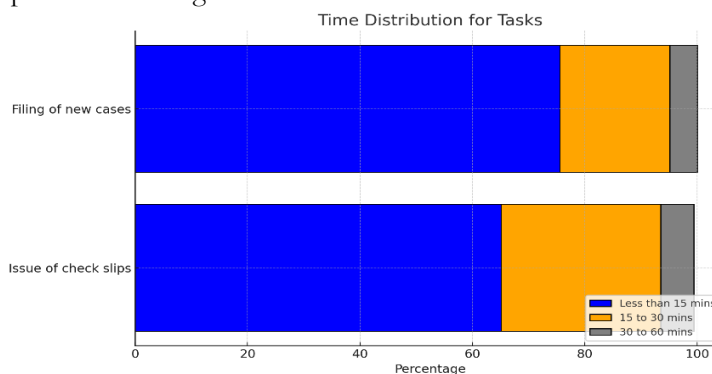


Figure 6. Time distribution for Tasks

The e-court services in India take less than 15 minutes which indicates that is functional and has to be made more effective. Necessary implementation mechanisms have to be developed and effectively done in Indian E courts in Figure 6. Physical infrastructure in Indian E court complexes

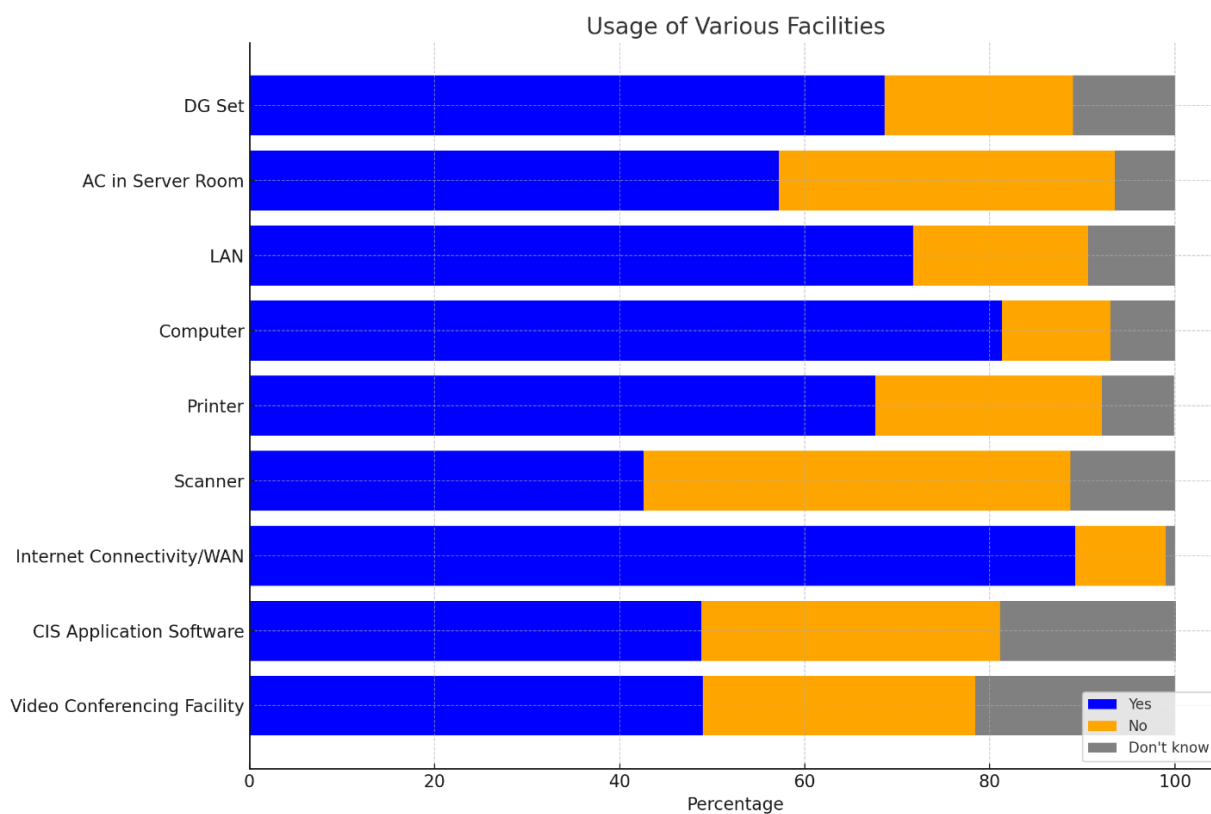


Figure 7. Usage of various facilities

It is also found that the entire E court physical infrastructure has been provided and the Indian government has succeeded in this. However, it is also known that 10% of these court staff at various levels are not aware of the existence of such facilities in Figure 7 & 8. Sufficient training and awareness must be provided for these court staff members in Indian courts.

Hypothesis on Training Programs and effectiveness in Indian e-courts

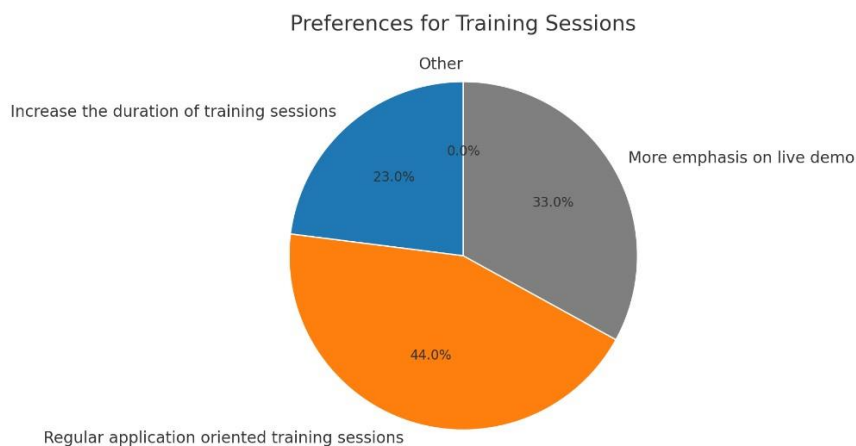


Figure 8. Preferences for Training sessions

It was found in this study that the majority of the respondents felt that training has been provided in Indian courts however it has to be regular and application oriented in Figure 9.

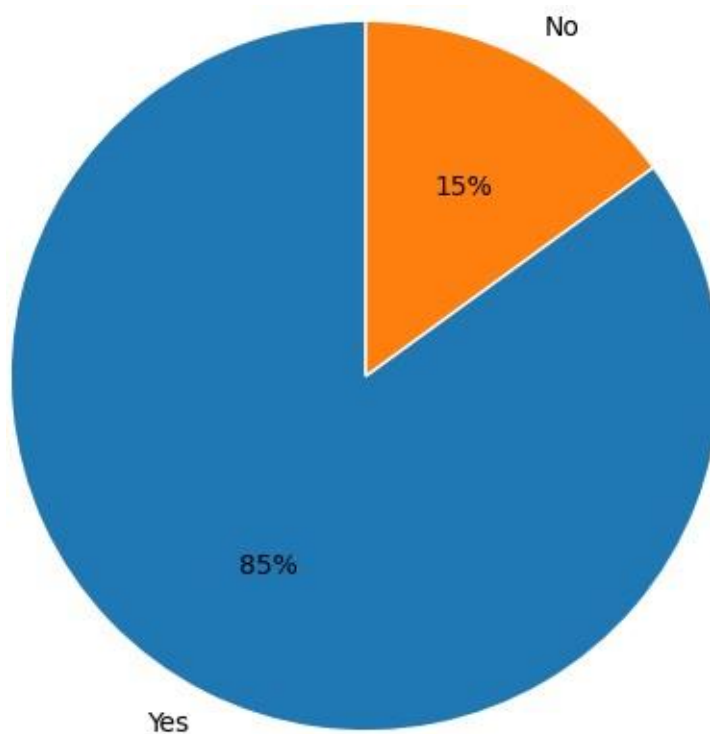


Figure 9. Hypothesis on positive perception by Judges

It was found that 87% of Indian judges found that the implementation of E-court proceedings in India was positive as it could modify Indian court systems and practices. The rest felt that there are challenges that do prevail which have to be managed effectively.

Hypothesis testing and implications

Hypothesis 1:

H0: The nature and extent of E court mission project implementation in India has not been comprehensive and effective

H1: The nature and extent of E court mission project implementation in India has been comprehensive and effective

Secondary Data for the hypothesis has been given below and the testing has been done also in Table 8 & 9.

Table 8. Summary of Pending and Disposed of Cases by Year of Filing

Year of Filing	Pending Cases	Disposed of Cases
<2009	116,647	43,560

2010	20,764	1,530
2011	19,397	1,876
2012	22,815	3,311
2013	33,737	6,892
2014	51,447	12,113
2015	65,506	23,448
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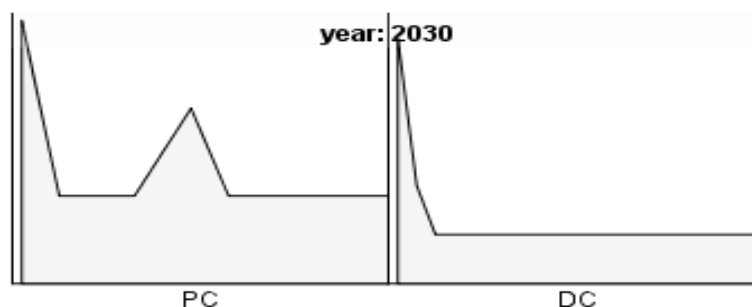


Figure 10. Forecast model

Table 9. T-test results of the data

One-Sample Statistics						
	N	Mean	Std. Deviation	Std. Error Mean		
Pending cases	10	51824.90	30742.940	9721.771		
Disposed cases	10	69471.80	132929.542	42036.012		
One-Sample Test						
	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Pending cases	5.331	9	.000	51824.900	29832.73	73817.07
Disposed cases	1.653	9	.003	69471.800	-25620.27	164563.87

Inference

T-test will be used for the above data by comparing the means of two groups pending cases and disposed of case count year-wise Sig. (2-tailed) is the p-value that represents the criteria for accepting or rejecting a hypothesis in Figure 10.

If the p-value is less than the level of significance rejects the null hypothesis

The accepted level of significance for secondary data is 1% or 5%

Here in the result, the p values for both pending cases and disposed cases are less than the significant value of .05 so we reject the null hypothesis H₀. Hence it is revealed that the nature and extent of E court mission project implementation in India has been comprehensive and effective.

Hypothesis 2:

H₀: E court mission project has not been implemented in various high courts of India.

H₁: E court mission project has been implemented in various high courts of India in Table 10.

Table 10. Secondary Data for the hypothesis

State	AC-Act	IC-Act	NI-Act	SR-Act	TP-Act
Andhra Pradesh	2212	2	46485	4	77
Assam	-	-	19180	-	107
Bihar	4152	70	29668	107	11
Chandigarh	294	1	538	-	-
Chhattisgarh	6754	-	36987	2589	1

DNH at Silvassa	2	-	4	-	-
Delhi	30122	-	100172	1757	5
Goa	20	-	471	4	-
Gujarat	5080	327	10778	9	1
Haryana	4624	1	23631	312	-
Himachal Pradesh	996	167	22639	69	5
Jammu and Kashmir	-	-	-	-	-
Jharkhand	65	-	31377	344	-
Karnataka	6578	12	11016	67	2
Kerala	15596	-	22269	101	3
Madhya Pradesh	6096	167	22968	135	4
Maharashtra	27938	32	28581	155	2
Manipur	18	209	2064	6	-
Meghalaya	251	-	159	2	-
Mizoram	-	-	-	-	-
Orissa	1932	1	4984	3213	123
Punjab	8498	-	12885	87	-
Rajasthan	22938	12	12707	638	66
Tripura	2	-	335	4	-
Sikkim	-	-	178	-	-
Tamil Nadu	8483	2	3314	55	2
Telangana	5472	-	9592	80	-
Uttarakhand	1412	1	37819	17	-
Uttar Pradesh	3307	-	14788	2080	-
West Bengal	17425	10	19907	26552	12

Table 11. Kolmogorov Smirnov test

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of AC is normal with a mean of 5358 and a standard deviation of 7522.223.	One-Sample Kolmogorov-Smirnov Test	.000 ^a	Reject the null hypothesis.
2	The distribution of IC is normal with a mean of 51 and a standard deviation of 93.978.	One-Sample Kolmogorov-Smirnov Test	.000 ^a	Reject the null hypothesis.
3	The distribution of NI is normal with a mean of 26557 and a standard deviation of 23242.925.	One-Sample Kolmogorov-Smirnov Test	.003 ^a	Reject the null hypothesis.
4	The distribution of SR is normal with a mean of 2635 and a standard deviation of 5462.573.	One-Sample Kolmogorov-Smirnov Test	.000 ^a	Reject the null hypothesis.
5	The distribution of TP is normal with a mean of 85 and a standard deviation of 312.215.	One-Sample Kolmogorov-Smirnov Test	.000 ^a	Reject the null hypothesis.
Asymptotic significances are displayed. The significance level is .050.				
a. Lilliefors Corrected				

The Kolmogorov-Smirnov test produces test statistics that are used (along with a degree of freedom parameter) to test for normality. Here we see that the Kolmogorov Smirnov statistic takes a value of .050 and the p-value is .000 which is $p < .005$ in Table 11. We therefore have significant evidence to reject the null hypothesis that the variable follows a normal distribution

Hypothesis 3:

H0: E courts have been perceived very positively by judges in India.

H1: E courts have been perceived very positively by judges in India in Figure 11.

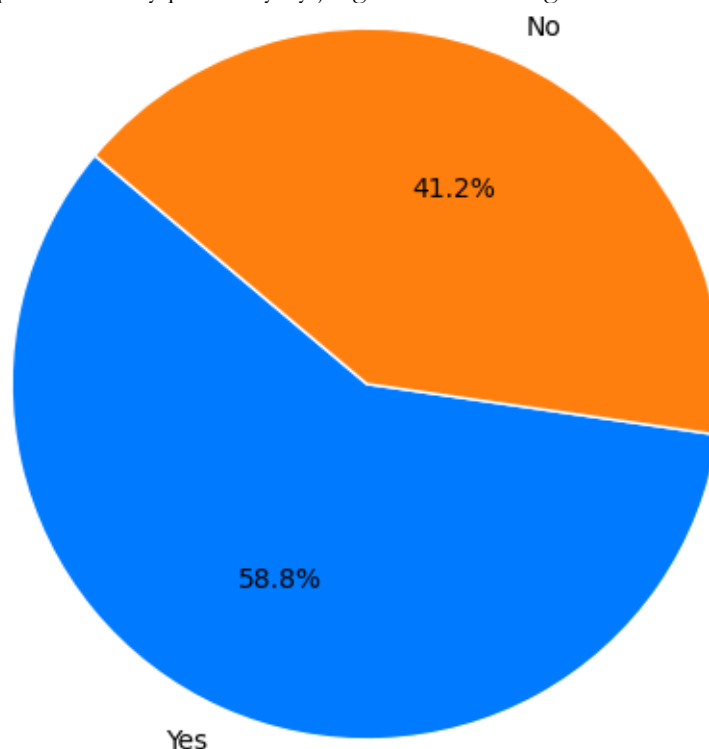


Figure 11. Pie chart representing, Are you aware of the eCourts national Portal?

Table 12. One-Sample Kolmogorov-Smirnov Normal Test

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Awareness on E courts is normal with a mean of 1 and a standard deviation of .495.	One-Sample Kolmogorov-Smirnov Test	.000 ^a	Reject the null hypothesis.
Asymptotic significances are displayed. The significance level is .050.				
a. Lilliefors Corrected				
One-Sample Kolmogorov-Smirnov Normal Test Summary				
Total N			102	
Most Extreme Differences		Absolute	.386	
		Positive	.386	
		Negative	.295	
Test Statistic			.386	
Asymptotic Sig.(2-sided test)			.000 ^a	
a. Lilliefors Corrected				

From the above table, it is found that the distribution of Awareness on E courts is highly distributed $p=0.000$ which is less than 0.005 in Table 12, hence it is proved that E courts have been perceived very positively by judges in India

Hypothesis 4:

H0: The extent of software training provided to Indian judges and advocates has not reached all over India

H1: The extent of software training provided to Indian judges and advocates has reached all over India in Table 13.

Table 13. Descriptive Statistics for e-Committee Outreach/Training Programmes Participants (January 2022 - December 2022)

Descriptive Statistics		
	N	Mean
e-Committee Outreach/Training Programmes participant January 2022-December 2022	249	680.5766
Valid N (listwise)	249	

Total Number -249 e-Committee Outreach Programmes conducted in 2022 (January 2022 to December 2022) total number of participants is 168783 and an average of 680 participants participated. (s3waasa.gov.in)

Table 14. Results of One-Sample Kolmogorov-Smirnov Test for Normality of e-Committee Outreach/Training Programmes Participants Distribution (January 2022 - December 2022)

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of e-Committee Outreach/Training Programmes participants from January 2022-December 2022 is normal with a mean of 680.58 and a standard deviation of 2657.84338.	One-Sample Kolmogorov-Smirnov Test	.000 ^a	Reject the null hypothesis.
Asymptotic significances are displayed. The significance level is .050.				
a. Lilliefors Corrected				
One-Sample Kolmogorov-Smirnov Normal Test Summary				
Total N		248		
Most Extreme Differences	Absolute	.399		
	Positive	.374		
	Negative	-.399		
Test Statistic		.399		
Asymptotic Sig.(2-sided test)		.000 ^a		
a. Lilliefors Corrected				

The distribution of e-Committee Outreach/Training Programmes participants during January 2022-December 2022 is normal with a mean of 680.58 and a standard deviation of 2657.84338 in Table 14. p-value is 0.000 less than .05 hence it is confirmed that the Extent of software training provided to Indian judges and advocates has reached all over India

Hypothesis 5:

H0: There is no impact of CIS application in Indian E courts has ensured effectiveness in Indian judicial systems & practices

H1: The impact of CIS application in Indian E courts has ensured effectiveness in Indian judicial systems & practices in Table 15.

Table 15. Transaction Counts for Various Mission Mode Projects

Mission Mode Projects	e-Trans. Count
e-Courts	4905480940
Land Records	2549226136
Agriculture	1118601828

Mission Mode Projects	e-Trans. Count
e-District	155724475
Income Tax (IT)	131094024

From Aug 2022 to Aug 2023

Source: <https://etaal.gov.in/etaal2/auth/default.aspx#>

According to the eTaal (Electronic Transaction Aggregation & Analysis Layer) website (<https://etaal.gov.in/>), the e-Courts Project is ranked first under the category of mission mode projects for Aug 2023 for providing the **highest number of e-transactions** to the citizen in Table 16.

Table 16. Summary of e-Transactions and Access Statistics as of May 20, 2018

Sl #	Service Name	No. of e-Transactions	Last Updated On
1	Case Status Accessed	20,31,92,783	20 May 2018
2	No. of Orders Accessed	4,26,65,780	20 May 2018
3	Case Status Accessed (Mobile App)	3,73,72,697	20 May 2018
4	No. of emails sent to Parties Advocates and Police Station	1,33,32,082	20 May 2018
5	Causelist Accessed (Mobile App)	95,66,489	20 May 2018
6	No. of Orders Accessed (Mobile APP)	66,20,444	20 May 2018
7	Causelist Accessed	43,38,996	20 May 2018
8	Updating Current Status (Mobile App)	35,25,164	20 May 2018
9	SMS sent to Advocates and Litigants	22,74,568	20 May 2018
10	No. of Cases Filed	21,72,129	20 May 2018
11	No. of Cases Registered	20,67,409	20 May 2018
12	No. of Cases Decided	16,75,042	20 May 2018
Total e-Transactions		32,88,03,583	

https://ecourts.gov.in/ecourts_home/static/manuals/Case%20Management%20through%20CIS%203.0.pdf

Table 17. One-Sample Kolmogorov-Smirnov Normal Test

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of NUMBER OF TRANSACTION is normal with a mean of 27400299 and a standard deviation of 57093540.310.	One-Sample Kolmogorov-Smirnov Test	.000 ^a	Reject the null hypothesis.
Asymptotic significances are displayed. The significance level is .050.				
a. Lilliefors Corrected				
One-Sample Kolmogorov-Smirnov Normal Test Summary				
Total N			12	
Most Extreme Differences		Absolute	.347	
		Positive	.347	
		Negative	-.326	
Test Statistic			.347	
Asymptotic Sig.(2-sided test)			.000 ^a	
a. Lilliefors Corrected				

The distribution of NUMBER OF TRANSACTIONS for all e-court services is normal with a mean of 27400299 and standard deviation of 57093540.310 and the p-value is 0.000 less than .05 in Table 17, hence it is confirmed that the impact of CIS application in Indian E courts has ensured effectiveness in Indian judicial systems & practices.

Major findings of this study:

1. Although the court mission project has been implemented with thousands of crores of investment in India, we do find that operational problems do prevail in it
2. The challenges start from data entry, handling of case records, and retrieving data for timely use by advocates and judges – which is evident empirically in this study.
3. The e-court mission project has provided faster and more efficient provision of justice which has created a new hope among Indian citizens
4. Although judges and advocates are aware and they are using this process, more training and awareness are needed on its effective usage
5. It is found that a lot of operational challenges prevail at the data entry and retrieval level of the Indian e-court mission project
6. The E court mission project has provided faster and more effective solutions for justice to the people of India

Recommendations for this study:

1. As it is found that data entry problems do prevail in the Indian court's mission projects – advocates also be involved in day day-to-day processes, to train data entry operators which can provide ease and effectiveness in this system.
2. As there is a need for timely justice more effective judicial mechanisms and practices have to be evolved
3. A holistic and purposive Indian court mission has to be created that can solve judicial problems all over the country
4. More effective timely delivery of justice is the need of the hour and there is a long way to go.

Conclusions

Indian courts mission project has been implemented across Indian country, but the journey has just begun. It is evident from the study that there is a need for effective coordination of the entire judiciary system at the grassroots level to make it more functional and implementable. The judiciary must ensure that proper awareness among people regarding E courts and their mechanisms has been provided. The judges and advocates must involve themselves with E court cases and deliver speedy justice. The delay in justice is the root cause of all evils in Indian society. Justice cannot be taken at hand, and it cannot be provided

to people at an individual level. So, proper and effective implementation of E courts is the only solution for the Indian future. It is also found in this study that from the data entry level till the delivery of judicial justice there must be an effective and smooth integration that can ensure this. So, there is a need for inclusive judicial justice at the social level and in the functioning of the Indian judiciary which is the need of the hour. The need for holistic integration of the Indian judiciary system is very much evident as there is a need for judicial transformation. Only an effective judicial transformation could ensure social integration and inclusiveness of all people. The need for timely delivery of justice is also clear in this study – as the only hope left is E court process and implementation only. The mindful integration of judges, advocates, and administrative, data entry staff in the Indian judicial system is mandatory which the need of this hour is. This holistic system must ensure timely justice for people across the Indian society irrespective of caste, creed, and language and this can be hopefully achieved by 2030. This study concludes that the E court mechanism and its administrative procedures must be effectively implemented in a holistic way which can provide new impetus and directives for the Indian judiciary. This study also concludes that this is the only effective mechanism for judicial transparency and effective functioning of this system must continue in the future.

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