



# Qualitative Research Journal for Social Studies

ISSN Online: 3006-4686, ISSN Print: 3006-4678

Volume No: 02 Issue No: 02 (2025)

## E-justice in Pakistan at a crossroads: Challenges, comparative lessons, and pathways for digital judicial reform

\*Zarar Ahmed

\*\*Dr. Tansif Ur Rehman

\*\*\*Shah Murad

The manuscript has not been previously published elsewhere and is not being considered by any other journal. The authors read and approved the final version of the respective manuscript.

\*Zarar Ahmed, Department of Law, Dadabhoj Institute of Higher Education, Pakistan (zararahmed933@gmail.com) (+923093648036)

\*\*Dr. Tansif Ur Rehman, Teaching Associate, Department of Sociology, University of Karachi, Pakistan; and Visiting Faculty, Department of Law, Dadabhoj Institute of Higher Education, Pakistan (tansif@live.com) (<https://orcid.org/0000-0002-5454-2150>)

\*\*\*Shah Murad, Assistant Professor, Faculty of Law, Federal Urdu University of Arts, Sciences and Technology, Karachi (s.murad@fuuast.edu.pk)

**Note: The authors have no conflict of interest to declare**

### Abstract

The e-justice or digital justice is a transformation of law-making system. Technology, government intervention, and judicial reform are the factors affecting the future of e-justice in Pakistan. Court automation started in the first decade of the 21st century, but advancement is slow because of the industry structure, lack of funding, and training. By 2024, few of the courts will be completely digitalized. But developed nations such as the UK and Estonia are already at the forefront of the adoption of AI and online dispute resolution in their judicial systems, while other developing nations such as India and Brazil are also accelerating the adoption of e-justice systems after COVID-19. The current challenges, best practices from other countries, and the steps to be taken to ensure the future of e-justice in Pakistan will be discussed in the paper.

*Keywords:* comparative analysis, digital courts, e-justice, judicial reform, Pakistan

### Introduction

The adoption of digital technology to hasten court processes, improve transparency, and enhance accessibility is commonly known as e-justice. It involves case tracking, virtual hearings, online filing, as well as access to legal information, and this is to enhance the efficiency and fairness of judicial systems. The judicial backlog in Pakistan has reached almost 2 million cases, and technological change is therefore urgent. However, a lack of infrastructure, low digital literacy amongst the employees of the court, and opposition to change have slowed down



# Qualitative Research Journal for Social Studies

ISSN Online: 3006-4686, ISSN Print: 3006-4678

Volume No: 02 Issue No: 02 (2025)

development. According to Din (2024), the situation with a two-sided nature of access to justice requires technological and procedural change. As Kassar et al. (2024) emphasize the role of evolving case management systems in projects to address judicial delays, Shafiq et al. (2022) propose that ICTs and AI can be effectively used to reduce delays in trials in Pakistani courts.

Countries such as Estonia, the UK, and Singapore have been able to digitize their legal systems. The case of Estonia is that the courts are fully computerized, and records are locked in through blockchain technology. The countries that are developing, such as India and Kenya, in particular, are in the process of developing e-filing and virtual hearings, particularly after the COVID-19 pandemic. Tahir et al. (2025) argue that AI can enhance the effectiveness and control of evidence in trials. Ahmed et al. (2021) point to the beneficial role of e-court systems in decreasing the administrative delays, and Gondal et al. (2024) underline that the use of technologies should be accompanied by more extensive legal changes.

The Supreme Court and a few high courts in Pakistan are entirely digitalized. However, there are several other programs like online cause lists, a case-tracking system, and the national judicial automation unit. Arshad and Saleem (2025) discuss that the suggested inclusion of alternate dispute resolution can be used to supplement digital courts, whereas Din (2024) indicates that the implementation of e-courts should be standardized at the national level. Collaboration with the private domains and sustainable funding is vital, as stated, and the changes in culture and procedures are a necessity to deliver long-term judicial reform, as stated (Shafiq et al., 2022).

## Research Justification

A unique momentum has emerged in online governance due to the worldwide consequences of COVID. The World Bank asserts that the implementation of digital courts enabled the average time of processing a case in the countries where the systems were adopted to be reduced by 30-50 percent. This model would go a long way toward relieving the courts' burden in Pakistan, where court cases have been known to take ages to be completed.

This study identifies the opportunities and threats facing Pakistan by comparing e-justice models across developed, developing, and underdeveloped countries. It has introduced a roadmap, which is in tandem with the socio-legal realities, in addition to the digital capabilities of Pakistan. Comparative interpretation of this change cannot only be used to inform domestic reform, but also aids in global discussion of the subject of digital justice in the emerging democracies.

## Research Objectives

1. To discuss the historical context of e-justice in Pakistan.
2. To analyze the existing laws, policies, and institutional frameworks that regulate and support the implementation of e-justice in Pakistan.
3. To identify the key challenges regarding e-justice in Pakistan.
4. To explore the opportunities to make the process of transparency, accessibility, and efficiency more efficient through the e-justice mechanism in Pakistan.
5. To propose realistic suggestions and policy proposals on how e-justice initiatives can be enhanced to be sustainable in the various Pakistani courts.



# Qualitative Research Journal for Social Studies

ISSN Online: 3006-4686, ISSN Print: 3006-4678

Volume No: 02 Issue No: 02 (2025)

## Research Methodology

This study employed a systematic review methodology, with research objectives established accordingly. A comprehensive literature review was conducted (Komba & Lwoga, 2020). Research findings were categorized based on their content (Hiver et al., 2021; Petticrew & Roberts, 2006), and classified information was incorporated into the study by organizing it into headings (Gan et al., 2021; Pawson et al., 2005). The evaluation of classified information and titles formed the basis of the study (Page, 2021; Rahi, 2017), ensuring the integrity of the research subject and its contents (Egger et al., 2022; Victor, 2008). The criteria for selection are listed.

1. **Relevance:** Researches that directly addressed the questions posed by this study are included.
2. **Quality:** Studies that meet a certain quality threshold (e.g., methodological rigor, bias risk) are included. Most of the research is from Scopus-indexed and Clarivate Analytics journals and reputed publishers.
3. **Recency:** Consideration of the publication date to ensure that the review reflects the most current evidence. Most of the studies are from the last three years.
4. **Language:** Only studies published in English are included.
5. **Data Completeness:** Previous studies must provide sufficient data on outcomes of interest for practical synthesis; this is also ensured in this research.

This study did not use primary data from human participants; therefore, no ethics clearance letter from the ethics committee was required.

## Literature Review

E-justice has undergone a lot of changes in the operation of courts globally, as they are able to deliver justice more quickly and transparently, and are readily accessible. Even complete legal systems in nations such as India have been computerized through initiatives such as the e-courts project, which computerized thousands of courts and enhanced the efficiency of administrative agencies (Verma, 2018). The same applies to the digital systems in Pakistan, which remain insufficient in number but have begun to enhance court functioning by simplifying case management and automating routine tasks (Arvante et al., 2025; Gondal et al., 2024).

The COVID-19 pandemic in developing countries triggered the introduction of digital tools. Judicial continuity has been preserved during disruptions through remote hearings, online case filing, and case-tracking systems (Baig, 2025; Baimenov & Liverakos, 2025). Despite the lack of infrastructure or other forms of digital illiteracy, e-justice reform policies have led to fewer delays in cases and greater access to legal assistance (Ahmed et al., 2021). Alternate dispute resolution has also emerged as a complementary method to curb congestion in the courts, especially in Pakistan (Arshad & Saleem, 2025).

In Pakistan, even the higher courts are still not completely digitalized. Digitalization needs institutional support, capacity building among judges and lawyers and awareness-raising (Baig, 2025; Gondal et al., 2024). These steps are essential to ensure that while digitalization will



# Qualitative Research Journal for Social Studies

ISSN Online: 3006-4686, ISSN Print: 3006-4678

Volume No: 02 Issue No: 02 (2025)

bring speed and efficiency to the justice system, it will also ensure justice and accountability (Din & Rajput, 2024).

## Historical Context of E-Justice in Pakistan

In Pakistan, e-justice can be traced back to the early 2000s when the government adopted the Electronic Transactions Ordinance, 2002, which legalized electronic documents and electronically signed contracts. This ordinance was the gateway to tech in the judiciary system and the foundation of the electronic record keeping and online representation (Ahmed, 2021). Even with such legal reforms, execution was slow because of limitations of infrastructure and resources, and most of the district and sessions courts operated in a manual process. The projects that highlighted those possibilities were, however, pivotal in terms of modernizing the justice system by the potential that technology opens (Gondal et al., 2024).

Automation of pilots in the Supreme Court and a few high courts. Proposal: In the late 2000s and early 2010s, several pilot automation projects were developed, including those focusing on digitized cause lists and case management software. In 2016, the legislation was updated, and a law concerning cybercrime and the necessity of a digitally literate judiciary was introduced (Arshad & Saleem, 2025). With this kind of legislative success, the adoption of e-justice has been extremely low in comparison with other countries in the region, such as India, which has digitized thousands of courts in ten years (Verma, 2018). It brings out that the adoption in Pakistan has been sluggish owing to bottlenecks in the systems, political instability, and constraints on funds (Baig, 2025).

The latest historical change occurred after the COVID-19 pandemic, which compelled all court systems worldwide to conduct virtual proceedings. In Pakistan, this led to the further embrace of video-link hearings, online filing systems, and the creation of the National Judicial Automation Unit in 2021, which was to integrate court databases and national identity systems (Baig, 2025). These measures indicated that the judiciary could apply pressure, but unequal enforcement highlighted structural issues, including the digital divide between the city and the countryside (Din & Rajput, 2024). The present Pakistan e-justice situation can thus be characterized by a history of inconsistent reforms, which have not been motivated by long-term transformation through digital technology (Arshad & Saleem, 2025).

## Current Laws and E-Justice Initiatives in Pakistan

1. **The Supreme Court Automation Project:** This project implemented electronic tracking of cases, digitization of judgments, and online posting of cause lists. It was also designed to increase the level of transparency, open access to case information to lawyers and litigants, and generally make the functioning of the court more effective.
2. **Case Flow Management Rules:** The case flow management rules were introduced by various high courts to facilitate cases by shortening trial time. Through the use of online case management systems, the courts can track case progress, give precedence to cases, and eliminate backlog in the judicial system by adopting more efficient processes.
3. **National Judicial Automation Unit (2021):** The NJAU offered to combine the court data with nationwide databases, including NADRA and other governmental records. This program



# Qualitative Research Journal for Social Studies

ISSN Online: 3006-4686, ISSN Print: 3006-4678

Volume No: 02 Issue No: 02 (2025)

aims to establish a data-driven, centralized system of judicial management that would enable a much quicker verification process, reduce paperwork, and enhance interagency coordination.

4. **Electronic Transactions Ordinance, 2002:** This ordinance gives legal status to digital signatures and electronic records. It ensures the creation of a structural basis of electronic documentation and thus establishes an essential element of the e-justice system, and permits courts to receive digital filings and records safely.
5. **Prevention of Electronic Crimes Act (PECA), 2016:** PECA regulates the online behavior and also criminalizes electronically related crimes, which help in the development of digital jurisprudence and offer the legal system a framework through which evidence found online should be presented, online transactions, and protection of digital rights.

## Challenges for E-Justice in Pakistan

1. **Cybersecurity Issues:** Pakistan faces cybersecurity issues in relation to its judicial information systems. Its reliance on outdated software and hardware, and lack of effective data protection laws make its court databases vulnerable to cyber attacks. This threatens the confidentiality, integrity and availability of critical information.
2. **Digital Divide:** People living in rural and remote areas do not have equitable access to the internet and electronic devices. It hampers their access to online court services, which exacerbates justice inequalities.
3. **Policies are not coordinated:** E-justice policies are not consistent across the country. The rules and regulations set by different courts differ, which makes it difficult to standardize digital procedures and slows them down.
4. **Insufficient Infrastructure:** Basic infrastructure, such as computers, internet connection and electricity is lacking in many district and session courts. The lack of digital resources slows the digitalization of case management and virtual hearings.
5. **Training Necessities:** Court personnel including judges, clerks, and others are not trained in ICT. The lack of understanding of digital technologies makes it difficult to establish e-justice systems that are easy for judicial personnel to adopt, that they can use and are efficient and error-free.
6. **Resistance to Change:** Lawyers and judicial officials are also resistant to change. Fear of job loss, a lack of technological awareness, and the preference for the status quo may slow down the shift to electronic processes.

## Opportunities for E-Justice in Pakistan

1. **Artificial Intelligence and Blockchain:** Artificial intelligence can help to improve the process of legal research, case analysis, and case prediction, and enable judges and lawyers to reach more informed conclusions quicker. Meanwhile, blockchain can be used to generate evidence and records that cannot be interrupted and manipulated, which will help to minimize the risk of tampering with evidence and make the verification process in the court simpler. Together, all of these technologies can help to improve the efficiency, privacy and security of the court system.



# Qualitative Research Journal for Social Studies

ISSN Online: 3006-4686, ISSN Print: 3006-4678

Volume No: 02 Issue No: 02 (2025)

2. **International Financing:** The world community is funding Pakistan through the United Nations Development Programme (UNDP) and the World Bank for projects aimed at digitalizing the country's judicial system. The international financial assistance offers infrastructure, software, training, and research funds, thus enabling the deployment of the current e-justice systems according to international standards.

3. **Public-Private Partnerships (PPP):** Collaboration with technological companies and other institutions, such as NADRA and Punjab Information Technology Board (PITB), may help in expediting the development and adoption of digital courts. PPPs bring on board technical skills, novelty, and managerial effectiveness, which close the gaps in the ability of the government.

4. **Remote Area Digital Courts:** Mobile and virtual courts may be established to extend judicial services to remote and underserved regions, allowing people with limited physical access to the court to have their right to justice. It would reduce the expenditure on travel, time wastage, and hindrance to the accessibility of the redress of the law.

5. **Youth Approach:** Pakistan has one of the most youthful populations: more than 60 percent of the population is below 30 years old (PBS, 2023). This technology-savvy population can be used to accelerate the adoption of e-justice service platforms, as younger users are more exposed to digital resources, web processes, and mobile apps. The use of the youth would also develop digital literacy and an innovation culture within the judicial system.

## Discussion

E-justice in Pakistan faces both great challenges and opportunities. As the developed nations quickly digitize their courts, Pakistan is still faced with institutional paralysis, poor infrastructure, and disjointed policies. Nevertheless, countries such as India or Brazil have demonstrated that developing countries may skip some steps of reform under the condition of making appropriate investments and planning. Another issue of concern, especially in Pakistan, is the city-rural and literate-illiterate digital divide, which is likely to increase inequalities in access to justice unless it is tackled.

E-justice should not be seen just as a privilege of the elites, but rather, a tool of inclusive judicial reform, which is effective for all segments of our society. A gradual process of consultation is crucial to attain digital justice, which is not just accessible but also fair for all of the citizens by engaging the judiciary, the parliament, the civil society and the information technology specialists.



# Qualitative Research Journal for Social Studies

ISSN Online: 3006-4686, ISSN Print: 3006-4678

Volume No: 02 Issue No: 02 (2025)

## Conclusion

Pakistan is on a judicial reform path. While the western world provides examples of e-justice success stories, Pakistan needs to tailor its work to its own environment. The judiciary can be digitalized and backlog can be reduced, transparency increased and the public empowered but only with proper planning and consultation. Legal reform, training, infrastructure and awareness are vital for infrastructure development. The future of e-justice in Pakistan is possible with political will and investment that will ensure access to timely, fair and transparent justice for all.

## Recommendations

1. AI can assist with legal research and workload management.
2. Advance awareness campaigns to the public about access to digital courts.
3. Devise a national e-justice policy with definite timelines.
4. Digitize the lower and district courts first.
5. From ties between the government and the industry in software and cybersecurity.
6. Introducing internet courts to the rural communities through cell phones.
7. Introduce a national judicial ICT training.
8. Legal changes to promote online hearings and online evidence.
9. Make sure it is financed at the national budget level and by international donors.
10. Regulate and assess all digitization efforts using a separate agency.

## Research Limitations

The limitation of this research is that empirical data for e-justice in Pakistan is not always available. The reports of lower courts are not published, or are not readily available, making it difficult to ascertain what is being done in practice. Secondly, international comparisons are drawn between different systems, which are not necessarily comparable. Secondary data from the government and international institutions are also of great importance in the study, but they are subject to institutional bias. Although the issue of cultural resistance to change is addressed, it could be further explored through qualitative field research to understand legal professionals' perspectives. Lastly, because digital reforms are rapid in the world, certain data might soon become stale and thus need constant updates and verification.

## Research Implications

This research study has extensive policy, governance, and public administration implications in Pakistan. To begin with, they emphasize the necessity of building a coherent e-justice and digital framework in order to improve transparency and efficiency. Second, they propose that by incorporating international best practices and, more so, those of India and Brazil, Pakistan can devise strategies that are context-appropriate. Third, the study also highlights the significance of capacity-building in legal professionals, which is sometimes a forgotten part of a reform. Finally, within the framework of the identified digital divide and cybersecurity issues, there is a necessity to cooperate between the government departments and the tech sector. This work adds to both academic and policy discussions to offer practical guidance on the future of digitizing the law in developing economies.



# Qualitative Research Journal for Social Studies

ISSN Online: 3006-4686, ISSN Print: 3006-4678

Volume No: 02 Issue No: 02 (2025)

## References

- Ahmed, R. K., Muhammed, K. H., Pappel, I., Draheim, D (2021). Impact of e-court systems implementation: A case study. *Transforming Government: People, Process and Policy*, 15(1), 108–128. <https://doi.org/10.1108/TG-01-2020-0008>
- Arshad, S. A., & Saleem, H. A. R. (2025). Integration of alternate dispute resolution as a complement to the traditional court system in Pakistan. *Research Journal of Psychology*, 3(1), 112–125. <https://doi.org/10.59075/rjs.v3i1.51>
- Arvante, J. Z. Y., Sulistyawan, A. Y., & Riyanto, Y. P. (2025). The role of legal theory in the era of digital globalization: A perspective of law theory as a tool of social engineering. *Jurnal Pembangunan Hukum Indonesia*, 7(2), 307–324. <https://doi.org/10.14710/jphi.v7i2.128-145>
- Baig, A. (2025). The role of technology in enhancing access to justice: Challenges and opportunities in the 21st century. *Al Aasar*, 2(1), 774–779. <https://doi.org/10.63878/aaj418>
- Baimenov, A., & Liverakos, P. (2025). Public administration in the new reality: Challenges, implications, and prospects. In A. Baimenov & P. Liverakos (Eds.), *Public administration in the new reality* (pp. 1–36). Palgrave Macmillan.
- Din, S. J. U. (2024). Prospect of using technology to enhance access to justice: Comparative analysis between the Pakistan and Indian legal systems. *Law and Policy Review*, 3(2), 139–170. <https://doi.org/10.5349/lpr.32.08>
- Din, U.U., & Rajput, R. (2024). A conflict of prestige and interests: ICJ, South Asia, and the Middle East. *ISSRA Papers*, 16(1). <https://doi.org/10.54690/issrap.v16i1.161>
- Egger, M., Higgins, J. P., & Smith, G. D. (Eds.). (2022). *Systematic reviews in health research: Meta-analysis in context*. John Wiley & Sons.
- Gan, J., Xie, L., Peng, G., Xie, J., Chen, Y., & Yu, Q. (2021). Systematic review on modification methods of dietary fiber. *Food Hydrocolloids*, 119, Article 106872. <https://doi.org/10.1016/j.foodhyd.2021.106872>.
- Gondal, A. Q., Ahmad, P. D. M., & Hamid, D. H. M. (2024). Reimagining justice: Modern legal reforms for Pakistan in the 21st century. *Al-Aijaz Research Journal of Islamic Studies & Humanities*, 8(3), 31–39. <https://arjish.com/index.php/arjish/article/view/727>
- Hiver, P., Al-Hoorie, A. H., Vitta, J. P., & Wu, J. (2021). Engagement in language learning: A systematic review of 20 years of research methods and definitions. *Language Teaching Research*, 25(3), Article 13621688211001289. <https://doi.org/10.1177/13621688211001289>
- Kassar, G. R., Kausar, S., & Laghari, A. R. (2024). Evolving case management systems: Technological and administrative reforms to address judicial delays in Pakistan. *Annals of Human and Social Sciences*, 5(3), 763-778. [https://doi.org/10.35484/ahss.2024\(5-III\)69](https://doi.org/10.35484/ahss.2024(5-III)69)



# Qualitative Research Journal for Social Studies

ISSN Online: 3006-4686, ISSN Print: 3006-4678

Volume No: 02 Issue No: 02 (2025)

- Komba, M. M. & Lwoga, E. T. (2020). Systematic review as a research method in library and information science. In P. Ngulube (Ed.), *Handbook of research on connecting research methods for information science research* (pp. 80-94). IGI Global Scientific Publishing. <https://doi.org/10.4018/978-1-7998-1471-9.ch005>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., & Moher, D. (2021). Updating guidance for reporting systematic reviews: Development of the PRISMA 2020 statement. *Journal of Clinical Epidemiology*, 134, 103-112. <https://doi.org/10.1016/j.jclinepi.2021.02.003>
- Pawson, R., Greenhalgh, T., Harvey, G., & Walshe, K. (2005). Realist review - A new method of systematic review designed for complex policy interventions. *Journal of Health Services Research & Policy*, 10(1), 21-34. <https://doi.org/10.1258/1355819054308530>
- Petticrew, M., & Roberts, H. (2006). *Systematic reviews in the social sciences: A practical guide*. Blackwell Publishing. <https://doi.org/10.1002/9780470754887>
- Rahi, S. (2017). Research design and methods: A systematic review of research, sampling issues, and instruments development. *International Journal of Economics Management Sciences*, 6(2), 403. <https://doi.org/10.4172/2162-6359.1000403>
- Shafiq, J., Shafiq, H. M. S., & Sarwar, M. S. (2022). Use of ICTs and artificial intelligence to overcome judicial trial delays in Pakistani courts. *Pakistan Languages and Humanities Review*, 6(2), 1153–1163. [https://doi.org/10.47205/plhr.2022\(6-II\)97](https://doi.org/10.47205/plhr.2022(6-II)97).
- Tahir, M. I., Saeed, A., Murtaza, M., & Abdullah, H. O. (2025). The impact of artificial intelligence on evidence in criminal trials. *Social Science Review Archives*, 3(3), 1882–1894. <https://doi.org/10.70670/sra.v3i3.1023>
- Verma, K. (2018). E-Courts project: A giant leap by the Indian judiciary. *Journal of Open Access Law*, 6(1), 1-14. <https://doi.org/10.63567/cdvtr019>
- Victor, L. (2008). Systematic reviewing in the social sciences: Outcomes and explanation. *Enquire*, 1(1), 32-46. <https://www.nottingham.ac.uk/sociology/documents/enquire/volume-1-issue-1-victor.pdf>