



RESEARCH PAPER

Evolving Case Management Systems: Technological and Administrative Reforms to Address Judicial Delays In Pakistan

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ABSTRACT

This research paper looks into dynamic case management systems, with reformative technological and administrative improvements to reduce judicial delays in Pakistan. With special reference to the Judge's bench composition and expertise to emphasize the proper matching of cases with the specialization of a judge. At present, the judicial system of Pakistan suffers from a serious crisis of backlog and delay in adjudication due to which the legal system's efficiency and efficacy are weak. Researchers have employed a qualitative descriptive approach in which data collection methods such as case laws, review of relevant documents, and responses through interviews were utilized. This study has been carried out to analyze the impacts of technological and administrative reforms in expediting the case process. Findings underscored the use of AI and technological tools, including e-filing, electronic case tracking systems, dispute resolution platforms, district judiciary watchdog, and training for paralegal staff, which are key to eliminating judicial delays and backlog. The paper recommends expediting case resolution, improving the quality of justice, and restoring public trust in Pakistan's judiciary by implementing these reforms.

Keywords: Bench Composition, Case Management, Delays, Judicial Reforms, Technology, cases backlog, ADR

Introduction

The concept that justice delayed is justice denied is widely recognised. The foundation of a judicial system is the timely resolution of civil and criminal grievances (Shafiq, 2022). The situation of delayed justice is now a global phenomenon in the adjudication of lawsuits. The caseload in the courts is steadily increasing daily. Pakistan's legal system is also known for its prolonged and ineffective handling of case management (Justice (Retd) Jawad Khawaja, 2010). Last year in 2023, Pakistan was positioned at the 130th spot out of 142 countries on the World Justice Project's rule of law index. When a plaintiff initiates a lawsuit, unless it pertains to a minor matter, it generally does not anticipate an expedited resolution. Based on a 2012 United Nations Development Programme (UNDP) assessment, participants in their focus group discussions identified delay as the most detrimental aspect of the judicial system (Pakistan, 2018). This type of prolonged administration of justice fosters corruption and nepotism by forcing individuals to resort to alternative methods of resolving disputes outside the formal court system, which is characterized by numerous disadvantages (Xavier, 2009).

Judicial delays have remained a longstanding matter of concern in Pakistan's legal system, which undermines the effectiveness and quick dispensation of justice. The delays are caused by several issues, including ineffective case management systems, outdated laws, resource constraints, administrative inefficiencies and an increasing accumulation of pending cases. This prolonged delay in the delivery of justice erodes the public trust and confidence in the judicial system. As, enshrined in Article 37 clause (d), of the Constitution of the Islamic Republic of Pakistan, 1973: "The State shall ensure inexpensive and expeditious

justice". Currently, our judicial system is confronted with many challenges. Procedural intricacies lead to prolonging the adjudication process, and resource constraints limit the capacity of courts to handle the growing number of cases. Administrative inefficiencies, such as the colonial system of record keeping through registers, poor case scheduling, lack of training for paralegal staff and inadequate resource allocation, further exacerbate the problems. In the face of these challenges many countries throughout the world have embraced technological integration in their legal systems to enhance their efficiency, Pakistan still is in the process of adapting it. So, it's more important than ever before that our judiciary should timely integrate these evolving technological tools in case management processes that can result in quick disposal of cases. Traditional methods of case management only consume time and contribute to the ineffectiveness of the system. While administrative reforms are required to address systemic inefficiencies and guarantee that the judicial system functions with greater agility and effectiveness, technological integration through Artificial Intelligence (AI) has the potential to revolutionise the judicial system by expediting case processing and enhancing transparency. The importance lies in the composition of the bench and the expertise of judges, namely in aligning cases with judges' specializations to enhance case management and minimize delays. By analysing these aspects, this research aims to add to the continuing conversation on judicial reform and offer practical suggestions for stakeholders.

Literature Review

The administration of justice is the fundamental essence of a civilized society. The expeditious delivery of justice and prompt resolution of disputes and grievances of the accused are the fundamental components of an efficient judicial system (Muhammad Zada v. State, 2021). The court must attentively and patiently hear the case without using the excuse of a heavy workload to delay the trial. The court has the sacred responsibility of delivering swift justice to the people (Mrs. Nasima Yousuf v. Tehseen Abass, 2020). The Supreme Court in the case of MFMY Industries Ltd. v. Federation of Pakistan pronounced that:

"Court cannot, legally and morally, take the excuse of 'rush of work'. 'Not a single decision of a court of law should reflect that it was not a 'decision' but an attempt to earn 'numbers/units' or to lessen the number of cases entrusted to it for disposal 'according to law'. 'The thin line between two known legal maxims i.e., 'justice delayed is justice denied' and 'justice hurried is justice buried' must always be appreciated by every single court." (Muhammad Anayat v. Government of Punjab, 2015).

Delaying justice implies whether justice has been done or not. "Unreasonable delay in justice" violates freedom and endangers an individual. Delays in justice violate the right to life and liberty as stated in the 1973 Constitution of Pakistan. Pakistan's justice delay is most troubling because a fundamental right is at stake. For democracy to survive, justice must be fast. Ironically, Pakistan, a democratic nation with a fair legal system, executes justice the least. Unusual that such an imbalance is unconcerned (Bilal, 2021).

Currently, there are two widely recognised forms of court proceedings for resolving disputes: adversarial and inquisitorial. The courts in our legal system adhere to the adversarial procedure as prescribed in many procedural laws, such as the Code of Civil Procedure 1908 (CPC) and the Code of Criminal Procedure 1898 (CRPC) (Iqbal Kalanauri, 2021). Undoubtedly, our procedural laws, both Civil and Criminal, are well-designed and fundamentally good. However, they require a thorough revision to align them with contemporary advancements. Furthermore, it is necessary to ensure the effective implementation of the laws.

The Supreme Court of Pakistan, in the case of *Liaquat Hussain v Federation of Pakistan* (Liaquat Hussain v. Federation of Pakistan, 1999), expressed concern over the

growing backlog of cases in courts at all levels of the judicial system. The Court cautioned that if the necessary legal and judicial actions are not promptly implemented, the situation will continue to worsen.

Justice Mansoor Ali Shah, an esteemed senior puisne judge of the Supreme Court of Pakistan has also highlighted that the “traditional closed architecture of our courts” is incapable of resolving the problem of delays. He asserts that it is now necessary to implement technology to manage our 'courthouse'—a general word used to refer to courts in Pakistan. He emphasized “Delay, delay, delay is the biggest challenge”. Further, he attributes the delay to several factors, including the inadequate case management system, the absence of technology to track case progress, unregulated adjournments, insufficient training of judges and court staff, and inadequate communication between the three tiers of the judiciary.

The Current Backlog Of Cases

The increasing number of pending cases across all levels of the judicial system, from higher to lower courts, has emerged as a grave issue of widespread concern (Wasia, 2021). The resolution of civil disputes in Pakistan often spans several decades before they are ultimately resolved. Litigants in civil lawsuits have to face lengthy delays and live in a state of constant anxiety. Research suggests that, on average, it takes more than 25 years for a single case to be resolved by the Supreme Court from the time it is filed (Saqib, 2018). As of December 31, 2023, there were a total of 2,260,386 (2.26 million) pending cases in the country (Pakistan L. a., 2023).

- Out of them, 398,574 (0.39 million) cases were awaiting resolution in the Superior courts.
- There were 1,861,812 (1.86 million) cases awaiting resolution in the District Judiciary.
- Approximately **82%** of the cases awaiting resolution in the country are currently at the level of the **District Judiciary**.

Table 1
Pendency of cases 31-12-2023

Courts	Cases
Supreme Court of Pakistan	56,155
Federal Shariat Court	85
High Courts	342,334
District Courts	1,861,812
Total	2,260,386

From July to December 2023, the total number of unresolved cases across various levels scaled around 3.9%.

- A total of 2,381,465 cases (equivalent to 2.38 million) were initiated.
- 2,308,461 cases (equivalent to 2.30 million) were resolved within the specified time.

Factors Contributing to Judicial Delays

Identifying specific reasons for the delay in the administration of justice in Pakistan is challenging, as numerous factors need to be considered. However, it is important to note that delays are not uncommon and only serve to intensify the complainant's and victim's grievances (Melcame, 2021). In the case of *Mehram Ali & others versus the Federation of Pakistan*, the Supreme Court of Pakistan identified the issue of court delays and provided a

solution. The court explained that establishing new courts or appointing new judges would not solve the issue. Instead, it emphasised the importance of judges being willing to insist that other parties involved in the trial meet deadlines for its conclusion. This effort requires the commitment of judges. The delay in the dispensation of justice can only be eliminated through better court management, rather than by creating new courts or appointing new judges. It is the responsibility of the presiding officer of the court to take effective measures, as allowed by law, to address these issues (Mehran Ali v. Federation of Pakistan PLD, 1998, p 1445). Justice Warren Burger, the former Chief Justice of the American Supreme Court, expressed the view that it is unjust for ordinary citizens to require black-clothed judges, a well-dressed legal community, and furnished courtrooms to resolve their cases. Instead, they desire prompt and affordable justice (Dash, 2020). Some major factors that contribute to judicial delays are described below.

Case Backlog: The overwhelming backlog of cases in the courts, significantly contributes to judicial delays.

Inefficient Case Management: Poor case management practices, including traditional and ineffective handling of cases, hinder the quick disposal of cases.

Frequent Adjournments: Adjournment is postponing a legal case to a later hearing date to create additional time (Shah, 2014). The main reason behind the delay in the quick resolution of cases is also seeking excessive adjournments. As per Justice Irfan Saadat Khan's observations, adjournments have become a plague for the country's justice system. Recently, the Supreme Court in (Duniya Gul v. Niaz Muhammad, 2024) Observed:

"There is a prevalent and concerning trend of frequent adjournments requests in the lower courts, which amounts to an abuse of the process of the court.' 'This practice has significantly contributed to a substantial backlog of litigation in the lower judiciary.' 'It is imperative that we actively discourage this behaviour to ensure prompt delivery of justice to the citizens of Pakistan."

Resource Constraints: Insufficient resources, including inadequate funding, lack of infrastructure, and shortage of court staff, also contribute to judicial delays.

False and Frivolous Cases: Recently, Justice Jamal Khan Mando khail declared one case False and frivolous on various grounds and suggested the government revisit the criminal justice system that can provide speedy justice. Further, he stated, that false and frivolous cases must be curbed at the very initial stage as both wrong acquittal and conviction are breaches of law (Mehboob Hassan v. Akhtar Islam , 2015).

Corruption and Misconduct: The corruption and misconduct of judges, and court staff constitute unethical practices within the judiciary, resulting in deliberate delays and manipulation of the judicial process.

Material and Methods

Nature of Research

This study employed a mixed-methods approach, combining both qualitative and quantitative research methodologies. The integration of these methods allowed for a comprehensive analysis, utilizing the strengths of both to understand the research phenomenon in-depth and to validate findings with measurable data. Interviews and survey were conducted from respondent who was expert in subject and working in District and provincial court was conducted and semi structured Questions were asked. Responses from 40 respondents—82.5% advocates, 10% judges, and 7.5% paralegal staff—were received.

An aimed sample was utilized which is very convenient and purposive in order to achieve the answers.

Population: The population for this study consisted of experts in the relevant field of research. These individuals were selected based on their experience, knowledge, and contributions to the field.

Sample Size: A total of 40 respondents were included in the study. This sample size was determined to ensure adequate representation of expert opinions and to maintain a balance between qualitative insights and quantitative rigor.

Sampling Technique: A purposive sampling technique was employed to select the respondents. This non-probability sampling method ensured that only individuals with relevant expertise were included, thus enhancing the quality and relevance of the data collected.

Research Instrument: The primary instruments used in the study were structured questionnaires for quantitative data and semi-structured interviews for qualitative data. The questionnaires were designed to capture measurable data, while the interviews aimed to gather in-depth insights and opinions from the experts.

Pilot Testing: Pilot testing of the research instruments was conducted with a small subset of the target population (5 respondents) to ensure clarity, relevance, and reliability of the questions. Feedback from the pilot testing was used to refine the instruments before full-scale data collection.

Validity and Reliability: To ensure the validity of the research, the instruments were reviewed by field experts and cross-checked with existing literature. Reliability was measured using Cronbach's alpha for the questionnaire, resulting in a coefficient of 0.85, indicating a high level of internal consistency. For qualitative data, triangulation was employed to verify the findings by comparing responses from multiple sources.

Data Analysis Techniques: Quantitative data were analyzed using statistical methods, including descriptive and inferential statistics, with the help of software tools like SPSS. Qualitative data were coded and analyzed thematically to identify patterns and insights that aligned with the research objectives.

Ethical Considerations: Ethical approval was obtained from the relevant institutional review board such as Hyderabad District and High Court bar Associations and Sindh Bar council before the commencement of the study. Informed consent was obtained from all participants, ensuring that they were fully aware of the study's purpose and their rights. Confidentiality was maintained by anonymizing the data and securely storing all information collected. Participants were also given the option to withdraw at any point during the research process.

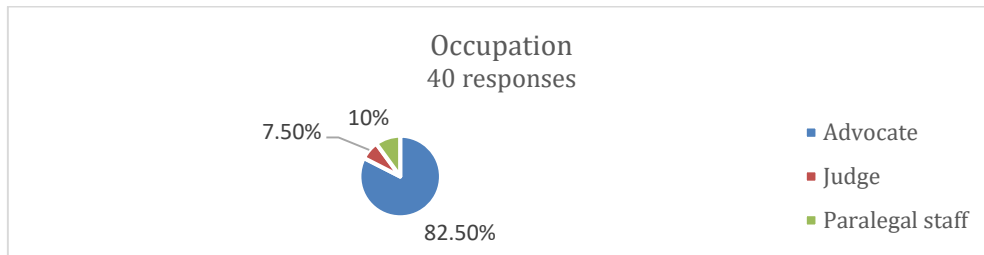
Result and Discussion

Interviews results were codified, processed by SPSS and reliability and validity is checked through cronbatch alpha:

Value= 0.70

Graph representing interviews Results

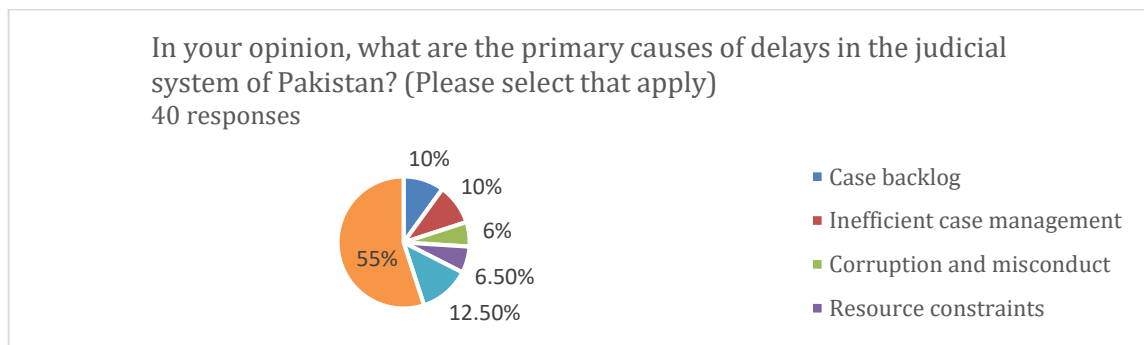
Graph no.1



Respondent Profile:

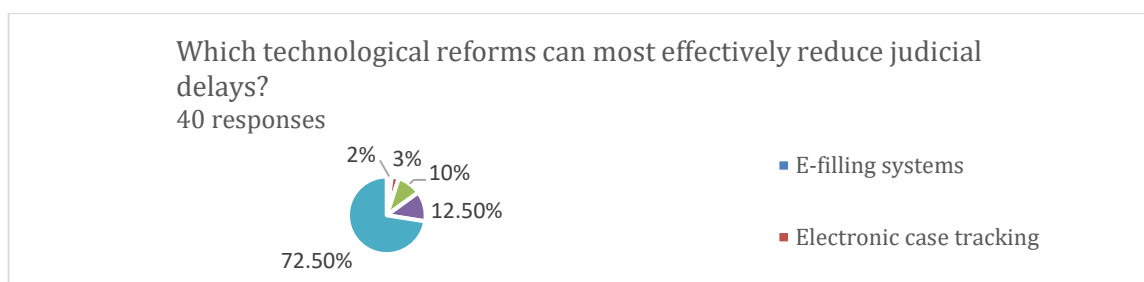
The questionnaires featured inputs from a broad spectrum of experts in Pakistan's judicial system, highlighting different opinions regarding the need for technological and administrative reforms in addressing judicial delays in Pakistan. Among those who participated in the survey, 82.5% are practising lawyers who have first-hand courtroom experience, while 10% are judges providing insights from their judicial role. Lastly, 7.5% of the responses are provided by paralegal staff of the court, who are crucial to the daily functioning of the judicial system.

Graph no.2



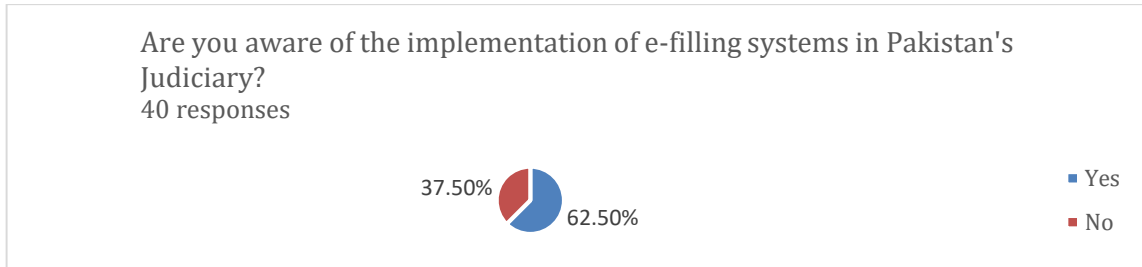
In response to this question, the majority of (55%) respondents were of the view that the combination of all these mentioned factors is the primary cause of delays in Pakistan. (12.5%) respondents highlighted frequent adjournments as a key cause of delays. (10%) respondents identified the case backlog as a significant cause of delays. Simultaneously, (10%) of respondents pointed out inefficient case management as a primary factor. (6.5%) respondents highlighted resource constraints and (6%) have identified corruption and misconduct. These findings underscore that there are multiple factors which contribute to judicial delays in Pakistan.

Graph no.3



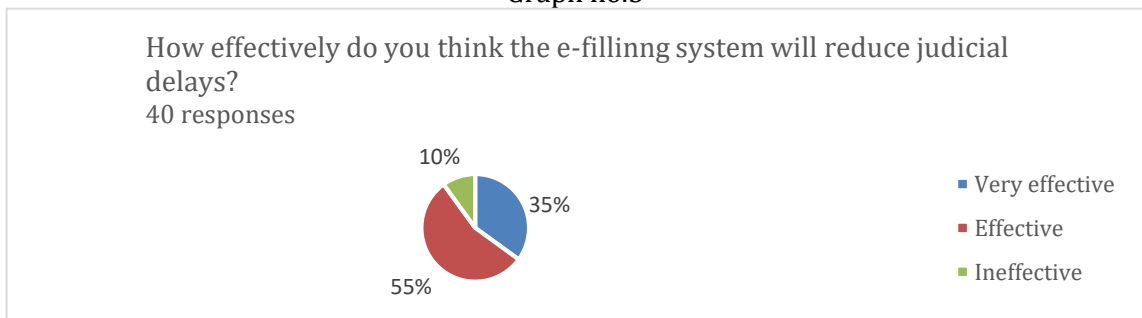
Responses to this question highlight that the majority of (72.5%) respondents underscore that all the mentioned technological reforms e.g., e-filing, electronic case tracking, AI-driven case management, and video conferencing will be key in reducing judicial delays and will help in reducing pendency of cases. Simultaneously, (12.5%) of respondents find video conferencing as an innovative reform that can help timely dispensation of cases.

Graph no.4



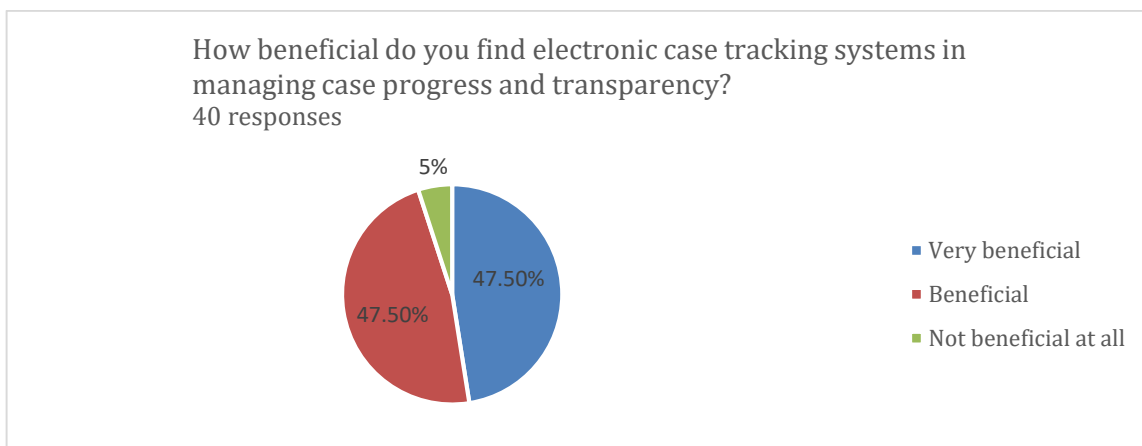
In response to this question, the majority of (62.5%) respondents responded that they are aware of the implementation of the e-filing system in Pakistan’s Judiciary and (37.5%) of respondents underscored that they are not aware of any such implementation. These results highlight that still there is a need to equip our judicial system minds with such far-evolving usage of technological tools in the process of the Courts.

Graph no.5



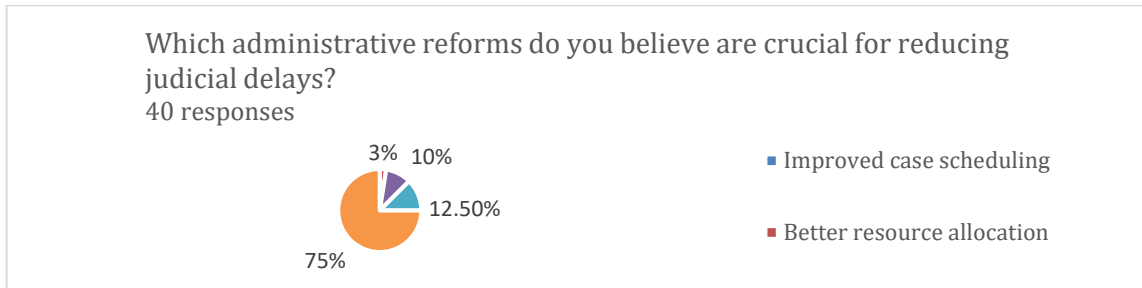
The responses from this question indicates that a significant number of (55%) respondents are confident that the role of the e-filing system will be effective in reducing judicial delays. Additionally, (35%) of respondents view this initiative as very effective. In contrast, (10%) of respondents believe that it will be ineffective in this case.

Graph .no.6



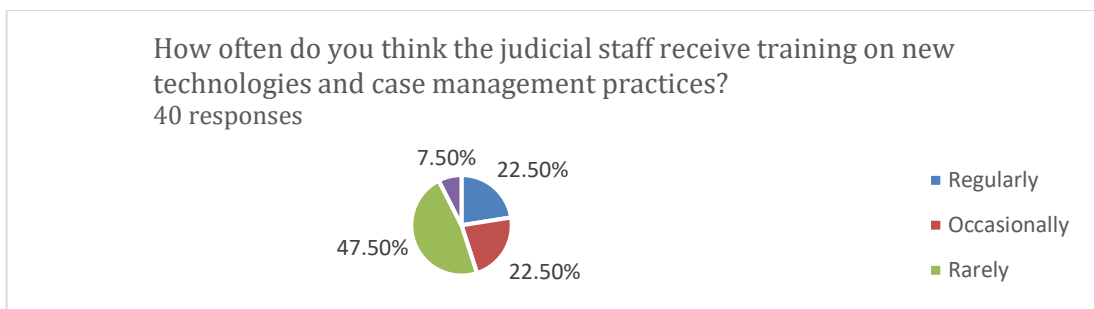
In response to this question, (47.5%) of respondents find electronic case tracking systems as beneficial in managing case progress and transparency. Simultaneously, (47.5%) of respondents rate it very beneficial and (5%) think that it will not be beneficial at all.

Graph no.7



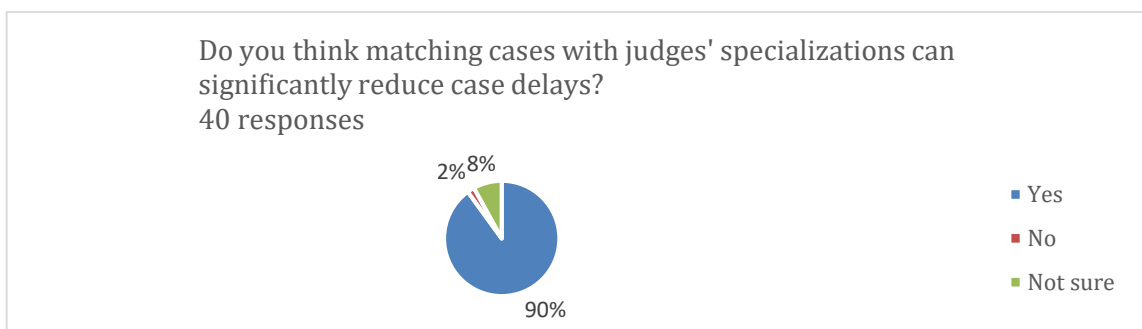
Responses to this question highlight that the majority of (75%) respondents believe that all the mentioned administrative reforms e.g., improved case scheduling, better resource allocation, enhanced staff training, establishing district judiciary watchdog, and establishing court-annexed ADR centres will be key in reducing judicial delays and will help in expediting the delivery of justice. Additionally, (12.5%) respondents favoured the establishment of court-annexed ADR centres. Moreover, around (10%) of respondents view district judiciary watchdogs as crucial reforms in maintaining judicial oversight and transparency. Lastly, (3%) respondents underscore the importance of better resource allocation.

Graph no.8



In response to this question, a significant (47.5%) of respondents agreed that judicial staff rarely receives training on new technologies and case management practices. (22.5%) of respondents rated that they occasionally receive it. Additionally, (22.5%) of respondents emphasised regular training given to staff. Lastly, (7.5%) of respondents indicated that they had never received such kind of training.

Graph no.9



In response to a question on matching cases with judges' specialisations majority of (90%) respondents underscore the importance and impact that it can have on reducing case delays and enhancing judicial efficiency. Contrary, around (8%) of respondents are unsure about the matching of cases with judges' specialization and its impact on reducing delays in cases.

Conclusion

This research paper discusses the need for reforming the current case management system through technological and administrative reforms, as due to its ineffectiveness courts are currently burdened by extensive case backlogs and judicial delays. Judicial delays have been a major impediment to the quick delivery of justice in Pakistan. Delays in justice violate human rights and undermine the rule of law. To overcome these challenges Pakistan needs a robust judicial system that can deliver justice expeditiously. Technological reforms such as e-filing, electronic case tracking, AI-driven case management, and video conferencing for hearings will streamline the court process and reduce delays. These reforms will not only expedite the case process but also contribute to enhancing accountability and transparency in the judicial system. As highlighted in the paper such technologies have been implemented in other countries and have yielded good results.

Additionally, administrative reforms are equally important. Improving case scheduling, enhancing resource allocation, and training for court staff are all essential for the effective working of the court. Establishing a district judiciary watchdog and court-annexed ADR centres will pave the way for strict oversight and provide cost-efficient platforms for dispute resolution. Moreover, as discussed in this paper the concept of judicial specialization, where benches are composed of judges who have expertise in the area of which nature a case is to be decided. Aligning the cases with judges' specializations, will not only speed up the case resolution but will also ensure that the cases are decided by an expert judge on subject matter, thereby enhancing the quality of justice.

The survey conducted as part of this research also underscores the urgency and importance of these reforms. The majority of respondents, including court staff, lawyers, and judges, have echoed the importance of both technological and administrative reforms in reducing judicial delays and improving efficiency. Their insights highlight the necessity of implementing such reforms that will eventually restore the confidence of the public in the judicial system. Pakistan by adopting these comprehensive reforms can overcome the accumulation of pending cases, ensuring that justice is not delayed and therefore, not denied. Thus, Government, judicial authorities, policymakers, and stakeholders should collaborate in implementing these reforms to build a more transparent and robust legal system for the citizens of Pakistan.

Recommendations

Evolving Case Management Systems

Ensuring prompt and high-quality legal proceedings is a fundamental component of the rule of law and the system for administering justice. Efficient court and case management systems can decrease reliance on human labour and traditional resources. It fosters fairness, honesty and ethical behaviour (Kalanauri, 2024). In Pakistan judiciary's aspirations of management methods have long been debated. Plenty of strategies have been proposed to reduce the massive case backlog. Some ideas were implemented, but others have never been debated (Zafar). Case management was first discussed in a former Chief Justice of England and Wales Lord Woolf's interim report Chapter 5, Para 18. (Woolf, 1997) The report defines case management as:

"A comprehensive system for managing the timing and progression of a lawsuit within the court system, from its institution to its settlement".

In India, the Supreme Court initially introduced the concept of case management in the case of *Salem Advocates Bar Association Vs. Union of India, 2005 (6) SCC*. In this judgement, the Supreme Court recommended that case management should focus on efficient management of litigation and reducing costs and delays. Similarly, as per the Australian Law Reform Commission background paper titled "*Judicial and Case Management*". 'Case management' refers to the process of overseeing the progress of legal matters in the courts.

Currently, in Pakistan judiciary mainly relies on both traditional and electronic methods of case management. Courts often rely on physical paper file submissions and manual data entry, leading to inefficiencies and delays. In response to these challenges, various projects were initiated to overcome the issue of delays. Various measures were taken, including the establishment of court management committees, the implementation of model courts, case flow management systems (CFMS), and the introduction of e-court automation projects (Bank, 2002). For instance, a short message service (SMS) was employed in Punjab to notify lawyers about the determination of cases; a mobile application was launched to empower lawyers and litigants to track the progression and state of their cases; and an online database was established for categorising cases. All these reforms reflected the efforts that have been taken to modernize the judiciary, which can deliver justice on time but still implementation and proper technological integration are lacking.

Justice Mansoor Ali Shah, once speaking at a seminar also expressed his disappointment and stated, "Nothing has changed because everything behind the automation system was manual". The purported automation system was devoid of intelligence. It did not provide information regarding the specific cases that needed to be fixed for hearing. There was a lack of markers indicating the age of cases and the stage of proceedings. Therefore, in the absence of a technologically advanced system to oversee the handling of cases, it is not unexpected that the performance of our justice system would be satisfactory (Ranjha, 2024).

TECHNOLOGICAL REFORMS

In today's world, the presence of technological elements is crucial in driving change across all aspects of work. The appropriate utilization of technology yields significant improvements in the efficiency of delivering justice as well, ensuring high quality, transparency, and public accountability. Utilizing Technology is widely seen as a crucial factor in enhancing the efficiency and effectiveness of the justice system (Hasan, 2021). Additionally, it can facilitate the quick administration of justice.

E-Court System

A comprehensive E-Court system refers to a fully established system of virtual courts where all necessary functions, such as case filing, court fee payment, summons issuance, evidence recording, final argument hearings, and judgment announcements, are conducted online without the need for physical presence or paper documents unless specifically required by the circumstances of the case (Zafar.,2023). In Pakistan, an e-court system has been adopted, but their usage is restricted to the Supreme Court and a few other courts. In 2019, the Supreme Court implemented the E-court system, marking the first instance of its kind in the country's judicial history. This technology allows for the remote hearing of cases through video-linked connectivity. The legal community, including the Judges of the Supreme Court, greatly applauded the remarkable performance of this comprehensive E-Court system. Often, these e-courts are primarily used for recording evidence or conducting final arguments (Malik Source, 2016). However, all other essential

activities, such as filing cases, paying court fees, and issuing summons, still need to be done in person.

E-Filing

Electronic filing, often known as (e-filing), is the method of transmitting legal documents to the court electronically using online platforms, rather than using traditional paper-based filings. Offering the capability for electronic filing is also encompassed under the broader scope of E-Courts. Historically, the parties' pleadings were manually submitted to court personnel as paper documents, which were then entered into the online database. The e-filing method facilitates the electronic uploading of pleadings via the file transfer protocol, which is beneficial due to its efficiency and time-saving nature. e-filing significantly decreases the expenses associated with physical papers and paper records (Greenwood, 2011).

An essential reason to support the integration of e-filing in Pakistan is that it will provide convenience for litigants, law firms, and lawyers to conveniently file their relevant papers online. Once the above-mentioned method is implemented properly it will not only ease the process but will accelerate the process of document submission to court. This will further lessen the hassle for those involved in a case. Furthermore, the e-filing will serve as a repository for petitioner and defendant papers, reducing the risk of record misplacement and allowing the involved parties to access the records simultaneously. In the United States of America for the first time in 1995, a small automation group from AOUSC developed an initial version of CM/ECF to investigate the feasibility of establishing a comprehensive case management and electronic filing system for a major asbestos lawsuit case in a US district court. In Singapore, the e-filing system was introduced in 1997 and gradually integrated, bringing computerized work processes to every step of the value chain. Further, the e-filing system has been now enhanced and replaced with the e-litigation system, which incorporates advanced digitalization features. One notable improvement is the ability to reuse text input in an e-form (Dr Shahid Hussain Kamboyo, 2024).

Electronic case tracking

The electronic case tracking system (CTS) can be implemented in all provinces of Pakistan for online record keeping. This system can be integrated through software to manage and oversee case projection. In Nigeria, since November 2006, an operational case tracking system has been implemented, which is an automated system that maintains records of all individuals who have been transferred to the care of the Nigerian Prisons Service. System users can discover prisoners on the CTS and access basic information regarding their cases. Additionally, performance and progress reports are also generated through this case tracking (Dr Shahid Hussain Kamboyo, 2024). Transparency is of utmost importance in the complex proceedings of cases. Notable Blockchain technology enables unprecedented fairness by creating a decentralized and publicly available ledger for tracking cases. Each stage of a judicial proceeding, starting from the institution to its final disposal, may be easily traced and examined, hence promoting confidence in the fairness of the legal system (Khan, 2024).

Virtual Courtrooms

The utilization of virtual courtrooms and video conferencing, especially in the aftermath of the COVID-19 pandemic, has significantly transformed the ease of access and expedited the process of remote hearings. This is evident in the case of the UK's HM Courts and Tribunals Service. (Dr Shahid Hussain Kamboyo, 2024). The initiation of virtual hearings is considered a new era in the legal domain of Pakistan. Courts can now transcend physical boundaries and expand their influence through online outreach platforms. This advanced courtroom technology enables judicial proceedings to take place remotely,

allowing individuals from different locations to participate in hearings without being limited by geographical distance. The Digitalisation Rules for the Supreme Court of Pakistan were formulated in 2021 to establish a complete set of objectives for digitalizing the justice sector. One of the main objectives was to create virtual courts, both at the Supreme Court and at its registries. The adoption of virtual court hearings was anticipated to enhance accessibility and effectiveness in court procedures. To facilitate these virtual courts, the rules stipulated the establishment of an online e-justice platform. This digital platform would have functioned as a centralized hub for legal activity, facilitating the accessibility and engagement of stakeholders in court processes (Sabir, 2024).

In Singapore, Videoconferencing was first implemented in 2002. In recent times, methods like Skype and Zoom have been successfully implemented to minimize the necessity for legal representatives to physically attend a courthouse, provided that their issues can be resolved online. As of now, Singaporean courts are also well-furnished with cutting-edge projection and image-capture technology as well. There is digital presentation tools called "whiteboards" that allow counsel or witnesses to make live annotations. These tools also can project objects and documents, ensuring that both witnesses and counsel may view evidence.

AI-driven systems

Currently, a reconstituted National Judicial Automation Committee (NJAC) (Pakistan C. J., 2023), under the chairmanship of Justice Mansoor Ali Shah is preparing a national plan for the integration of AI into legal processes to improve case management. With AI-powered legal research tools judges and legal professionals will be able to analyze vast amounts of information swiftly, thus enhancing decision-making. AI-powered tools will not only address case backlog challenges but also enhance transparency, accessibility and overall efficiency in the legal system. With the increasing adoption of technological advancements, the future holds the potential for a judicial system that is both efficient and fair, ensuring equal access for everyone.

Administrative Reforms

Case scheduling and management

As district courts handle cases with local parties and subjects, it is recommended that the district judicial administration handles them through an integrated case diary and uniform data management system. Cases can be entered into the software at the start, with a unique reference number consistent across courts, indicating when and what the dispute is about (e.g., business, contract, property). After a case is assigned to a court, the court may carry out initial processes and document important findings in the digital system. If deemed necessary, the case may advance to the trial stage, with specific timetables, scheduling, and careful consideration of all other related matters. The software would aid the administrative judge in scheduling trial and hearing dates, considering the availability of judicial time, courts, and presiding officers. The system can also document the key phases of the trial along with its outcome. The system can monitor key trial stages and their final results. Later, administrative and appellate judges may oversee and manage these matters during appeal phases. Digitized case flow software aims to allocate cases based on specific needs, manage litigation workload, streamline proceedings, and track legal disputes throughout the case life-cycle. (Saeed, 2020)

Resource allocation

Resource allocation is key in enhancing judicial efficiency. So, there should be an integrated system to manage better staff deployment, infrastructural needs, and financial resources across all courts.

Enhance training and capacity building

Regularly training programs should be carried out for judges and court staff on case management, and technological advancements. This can be done through workshops, seminars and online courses in collaboration with judicial academies across Pakistan.

District Judiciary watchdog

District judiciary watchdog centres should be established to oversee the work of judges and court staff to know if they are involved in corruption. These centres would aid in maintaining integrity, transparency and accountability within the judicial system.

Court-annexed ADR centres

It is imperative to incorporate a system of mediation and alternative dispute resolution into our justice system. ADR centres should be established in every district to alleviate the burden on courts and expedite the delivery of justice. The domestic arbitration law should be revised to limit the courts' intervention in arbitration proceedings, thus facilitating the shift from an adversarial legal system to mediation and arbitration (Davies,2022).

Bench Composition with Judges' Specializations

Judicial specialization is recognized as a beneficial concept in the legal system, particularly, when certain cases require expert knowledge. This concept has been identified by Gramckow and Walsh (Gramckow, 2013), who suggested that when there is a significant number of cases that demand expert judicial knowledge, then appointing judges with specialization would be beneficial in the quick disposal of cases. An analysis of American legal principles also suggests that: "Specialization of judges is an important feature of jurisprudence that can enhance judicial expertise without incurring many of the costs typically associated with specialized courts (Cheng, 2009). Furthermore, research findings indicate that when judges specialize in handling specific types of cases, it results in quicker trials and rulings. Importantly, this specialisation does not compromise the quality of delivering justice (The myth of the generalist judge, 2009). The growing intricacy of contemporary society and the rise of new legal fields dominated by technological advancements might be seen as a compelling demand for establishing specialized benches to hear the cases. So, matching cases with judges who have specialized knowledge in the relevant areas can significantly improve the efficiency of the judicial system and reduce delays. This can be done through the assignment of cases to judges who possess the requisite expertise and experience. Ultimately, this approach will open the opportunity to tackle the longstanding issues of case backlog in the Pakistani legal system

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