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Digital Courts in Pakistan: Can Technology Bridge the Access to Justice Gap?

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Abstract: *The paper discusses the opportunities offered by the digital courts in Pakistan to overcome the access-to-justice gap that is very high in Pakistan, marked by long delays, high costs, and complexities in the processes. A mixed-methods study, the research analyzes administrative data, litigants and lawyers surveys, as well as interviews with judges and court employees. The results show that online cause lists, case tracking, and e-notices are used to provide digital services that help ease the travel and cost burden of the users, especially in urban centers. Nevertheless, the rural and low-income users encounter obstacles that concern connectivity, digital literacy, and assistance. The paper has concluded that although digital courts have the potential of enhancing access to justice in Pakistan, the effectiveness of this transformation will rely on improved infrastructure, facilitation access to the disadvantaged users, and provision of procedural guidelines that will emphasize fairness and transparency.*

Key Words: Digital Courts; Access to Justice; Pakistan Judiciary; E-Justice; Digital Divide; Procedural Fairness; Court Reform

Introduction

The courts in Pakistan are characterized by a systemic delay, high expense of litigation, giving in-person appearances, huge backlog of cases, and complexity in its processes that may disfavor first-time users. Responding to this, there is a growing judiciary reform that takes technology as a tool of service delivery and case management. Digital courts In this article, a digital court will mean digitised court services, workflows e-filing/e-case initiation, e-cause lists and e-scheduling, video or hybrid hearings, digital case and document management (e-orders, searchable records), e-notices/SMS alerts, and online fee payments. Empirical studies have indicated that court digitisation is capable of maintaining business in times of disruption and also capable of updating routine administrative procedures that otherwise eat into courtroom time and space (Sourdin et al., 2020).

The access-to-justice gap refers to the gap between the legal requirements of people and their practical capacity to access timely, affordable, understandable and fair settlement by legal institutions that are legitimate. It is multidimensional in that it is available (accessible forums), affordable (charges and indirect costs such as transportation and lost work), timely (fast listing and disposal), fair (voice, neutrality, respectful treatment), and understandable (procedural clarity and navigability). Digital tools can reduce this divide by making less traveling and information, enhancing the reliability of notices and schedules, and making it a possibility to participate under remote conditions, particularly when making routine appearances. Nevertheless, burdens can also be placed on users by online systems through digital exclusion, lack of legal capacity, as well as imbalanced device, connectivity and support availability,. The adoption studies that are carried out on a developing-country level also imply that adoption is based on trust and perceived usefulness, cost of effort, and enabling conditions- which may also reflect inequalities in the justice pathways (Chaouali et al., 2016).

Digitisation is sought due to its potential to introduce administrative efficiency (workflow standardisation, the reduction of manual bottlenecks), greater record integrity, and increased flexibility of participation (remoteness, asynchronous work, etc.) (Sourdin et al., 2020). However, courts are no ordinary service providers: they are acting in the name of the

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people and procedures should protect the open justice and procedural fairness. Jurisprudence of internet hearings warns that the distance processes may make the people difficult to observe and become transparent in case there is a limitation to accessing links, listings, or records or such access is unmanaged (Legg, 2021; Townend and Magrath, 2021). Empirical studies of videoconferencing also show that the hearing medium has the ability to influence interaction, dignity, and perceived fairness - especially to vulnerable parties and proceedings that require meaningful participation.

The problem of access-to-justice in Pakistan, particularly the delay and high cost, distance, and complicated procedure, remains to be documented by court users and legal experts. This study aims to investigate the potential of digital courts to help reduce the number of these obstacles while remaining fair, transparent, and trusted by people (Legg, 2021). To this end, the research will determine whether and how digital court services can reduce the access-to-justice gap; it will establish targets to evaluate the impact on time-to-disposal, litigant cost and travel burden, and participation/attendance and determine the perception of access to justice and fairness and bottlenecks in implementation (infrastructure, skills, legal validity, and data protection).

The researchers are: RQ1: do digital services save time-to-disposal?; RQ2: do they save litigant costs and travel burden?; and RQ3: which factors predict adoption and satisfaction? The area is confined to a chosen provincial high court and district judicial procedures of the time of fast digitisation (and expansion of remote hearings), and to those common, high volume case contacts where digital steps are most likely to do so. This paper is relevant to judicial reform due to its connection between service design options and quantifiable access outcomes and legitimacy protections at the heart of technology-enabled courts.

Literature Review

Access to justice is often considered a multi-barrier issue - individuals can be legally in need, but are limited by barriers to successful use of courts (cost, delay, information gaps, distance and complex procedures). By making digital courts, digital justice is not merely a matter of efficiency; it is a design choice that can either expand or reduce inequality, depending on its accessibility and use by individuals (Sandoval-Almazan and Gil-Garcia, 2020; Jamil, 2021). e-justice is a frequent term in this literature, used to signify the digitalization of work processes (filing, scheduling, records, payments), as well as the digitalization of participation (remote hearings, online services), and openness and public legitimacy are regarded as the governance outcomes (Sandoval-Almazan & Gil-Garcia, 2020).

International experience indicates that digital processes have the potential to minimize administrative friction (fewer and faster manual steps, fast listing, and easy tracking), including in situations where courts were shocked (such as COVID-19), leading to increased remote participation and faster handling of cases in most jurisdictions (Sourdin et al., 2020). Nevertheless, scholarship cautions that the mere use of speed does not necessarily mean it is a form of justice: remote modalities can alter users' experiences in terms of voice, neutrality, respect, and trust, which are associated with perceived fairness and legitimacy. Simultaneously, arbitration and dispute-resolution studies question the credibility evaluation based on face-to-face hearings; cognitive psychology studies indicate that the so-called demeanor cues do not always work, yet parties may still choose face-to-face hearings for cultural and interactional reasons.

It has been mentioned that the digitization of the justice sector in Pakistan can be a solution to the barriers caused by travel burdens, lack of information access, and administrative lag, and as such, the online dispute resolution and digital intake could be applied in the decongestion of the court especially in family issues, and in routine filings. Nonetheless, the readiness to digitize varies: the functionality and availability of court web sites is a theme that has been reiterated, which can suggest that the value of digital interfaces is a factor in determining whether the judicial information can be practically used by the everyday litigants. Pakistan also represents a broader e-government research demonstrating that the adoption relies on the perceived usefulness, ease, and enabling conditions, meaning that the adoption pattern of courts with regard to digital services is likely to exhibit a similar pattern of behavioral patterns (Ahmad et al., 2020).

The benefits reported include (i) efficiency and continuity (caseflow resilience in disruptions), (ii) transparency and traceability (digital records, searchable status of the case), and (iii) reduced transaction cost (travel and waiting time) (Sourdin et al., 2020; Gras, 2021). The risks are grouped around (i) due-process quality (communication constrain, participation barrier), (ii) data security and integrity, and (iii) stakeholder resistance when technology is changing power or work

routines. The aspect of trust takes the center stage: when users lose confidence in the security, impartiality, or reliability, adoption and compliance can diminish, though the services may be available.

Studies on the concept of the digital divide focus on the idea that inequality extends beyond access to the internet and relates to skills, affordability, language/literacy, accessibility for persons with disabilities, and the capacity of institutions to support users (Jamil, 2021). In the case of the digital court, this means that rural litigants, users with low incomes, women with limited mobility or device access, people with disabilities, users with low literacy might face new obstacles unless accessible, user-friendly platforms are created (Sela, 2021; Jamil, 2021). Design for diversity is consequently regarded as a strategy for access to justice rather than a UI preference (Sela, 2021). In contexts, the biggest divide is user-level and equity-conscious assessment, i.e. the correlation of service adoption and satisfaction to quantifiable results (time-to-disposal, attendance, cost, perceived fairness) instead of just basing it on policy assertions. The difference in Pakistan is more pronounced because there is little published data linking measures of court performance with litigants' experience and digital inclusion.

Based on the literature on e-justice/open-justice and technology-adoption, the research will be able to formulate the model of digital court maturity (e-filing, case tracking, e-notices, video hearings, e-payments, digital case management) as the central predictor, and the outcomes will be classified into the following: timeliness (disposal duration), affordability (direct/indirect costs), participation (attendance defaults, adjournment), and procedural justice perceptions (voice, neutrality, respect, trust). It is probable that such moderators as digital access/skills, location (urban vs rural), case type and user category (lawyer vs litigant-in-person) will be relevant (Ahmad et al., 2020; Sela, 2021).

Methodology:

Research Design

This study adopts a mixed-methods design to evaluate whether digital courts reduce access-to-justice barriers and to explain why effects differ across users and court settings. A mixed approach is suitable because court digitization produces both measurable operational outcomes (e.g., time-to-disposal, adjournments, attendance) and experience-based outcomes (e.g., fairness, transparency, satisfaction) that require user and stakeholder interpretation. The design is convergent parallel: (i) quantitative court-performance and survey data are collected and analyzed alongside (ii) qualitative interviews and document review, then integrated to produce an explanation of "what works, for whom, and why."

Study Setting and Sample

Court levels: The study covers (a) district courts (high-volume civil/criminal and family matters) and (b) high courts (selected benches dealing with case management and procedural hearings). Where feasible, a small subset of special courts/tribunals with digitized cause lists or video links may be included for contrast.

Geographic coverage: A multi-site sample is proposed across Pakistan with an urban–rural mix. Courts are selected from at least two provinces plus a federal territory/bench where digital services are operational. Selection is purposive to ensure variation in infrastructure quality, caseload, and digitization maturity.

Participants

- Litigants (including litigants-in-person and represented litigants)
- Lawyers practicing in sampled courts
- Judges and court staff (IT staff, readers, clerks, nazirs)
- Process servers/notice-serving staff (where e-notices or hybrid service exists)

Sampling Strategy

- Administrative data: all eligible cases in defined time windows from sampled courts (census of records within scope).
- Survey: stratified sampling of litigants and lawyers by court level and location (urban vs rural).
- Interviews: purposive sampling to include high-usage and low-usage users and officials involved in implementation.

Data Sources

1. Court administrative data (quantitative): extracted from case management systems and court registers for each selected court, including: filing date, first listing date, disposal date, hearing count, adjournments, attendance/no-show flags, mode of hearing (in-person/video/hybrid if recorded), and service/notice dates.

2. User survey (quantitative): structured questionnaire for litigants and lawyers capturing access costs, travel/time, service awareness, digital tool usage, satisfaction, perceived fairness, and barriers.
3. Key informant interviews/focus groups (qualitative): semi-structured interviews with judges, court staff, lawyers, and litigants; optional small focus groups with staff or bar members to validate workflow issues.
4. Document review: court rules, circulars/notifications, SOPs, IT guidelines, training materials, pilot or project reports, and public-facing service descriptions (e-filing guides, portal help pages).

Measures and Instruments

Access-to-justice indicators (dependent outcomes):

- Timeliness: (i) filing-to-first-hearing days, (ii) filing-to-disposal days, (iii) number of hearings per case, (iv) adjournment count.
- Cost and burden: self-reported direct costs (fees, transport), indirect costs (lost wages/time), travel distance/time, and number of physical visits.
- Participation and reliability: attendance/no-show rates; perceived predictability of listings.
- Transparency and satisfaction: ability to obtain case information, clarity of procedure, overall satisfaction.
- Perceived fairness (procedural justice): voice (opportunity to be heard), neutrality, respectful treatment, and understanding.

Digital Court Indicators (Key Predictors)

- Use intensity: e-filing use (yes/no; frequency), case tracking use, e-notices/SMS use, online payment use, video hearing participation (count/yes-no), use of e-cause lists.
- Service environment: access to device/internet, digital literacy, helpdesk availability, language support, and prior experience with digital services.

Reliability/Validity Steps

- Pilot testing with a small group of litigants and lawyers to refine wording and reduce ambiguity.
- Multi-item scales assessed with Cronbach's alpha (target ≥0.70).
- Content validity through expert review (legal academics, court administration, bar representatives).
- Construct validity checks using factor analysis where scale length permits.

Data Collection Procedure

Administrative data are requested through formal permission from relevant court administrations. A data extraction template is used to standardize variables across sites. Surveys are administered **on-site** (paper/tablet) at courts and, where feasible, **online/phone** for follow-up to include users who rely on remote services. Interviews are conducted in private settings to protect confidentiality, using a semi-structured guide covering experience with digital services, barriers, fairness concerns, and implementation issues.

Inclusion criteria: cases filed within the defined study period (e.g., two years surrounding a digitization rollout) in selected courts; litigants/lawyers with direct case involvement in sampled courts during the same period.

Exclusion criteria: sealed/sensitive case categories where access is restricted; records with missing core dates that prevent time calculations; participants unable to provide informed consent.

Data Analysis Plan:

Quantitative Analysis

- Descriptive statistics (means/medians, distributions) for time, cost, and usage indicators.
- Group comparisons (urban vs rural; high-usage vs low-usage; litigants-in-person vs represented).
- Regression models to identify predictors of adoption and satisfaction (e.g., logistic/ordinal models) and to estimate associations between digital service use and outcomes (e.g., OLS/Poisson for time/adjournments).
- If phased rollout timing exists, a before–after comparison or difference-in-differences strategy is applied using court and time fixed effects to reduce confounding.

Qualitative Analysis

- Thematic analysis with coding in stages: open coding → focused codes → themes.

- Triangulation across stakeholder groups (litigant, lawyer, staff, judge) and across data types (interviews vs documents).

Integration

Results are merged using joint interpretation: quantitative patterns identify "where" effects appear, while qualitative findings explain "why" (e.g., helpdesk presence, unstable connectivity, training gaps, procedural adaptations).

Ethical Considerations

Participants provide informed consent; participation is voluntary with the right to withdraw. Identifiers are removed and replaced with codes; administrative data are de-identified (no names, CNICs, or addresses stored). Data are stored in encrypted drives with restricted access. Given the sensitivity of legal settings, interviews avoid discussing case merits and focus on process and service experience. Findings are reported in aggregate to prevent identification of individuals or specific cases.

Results:

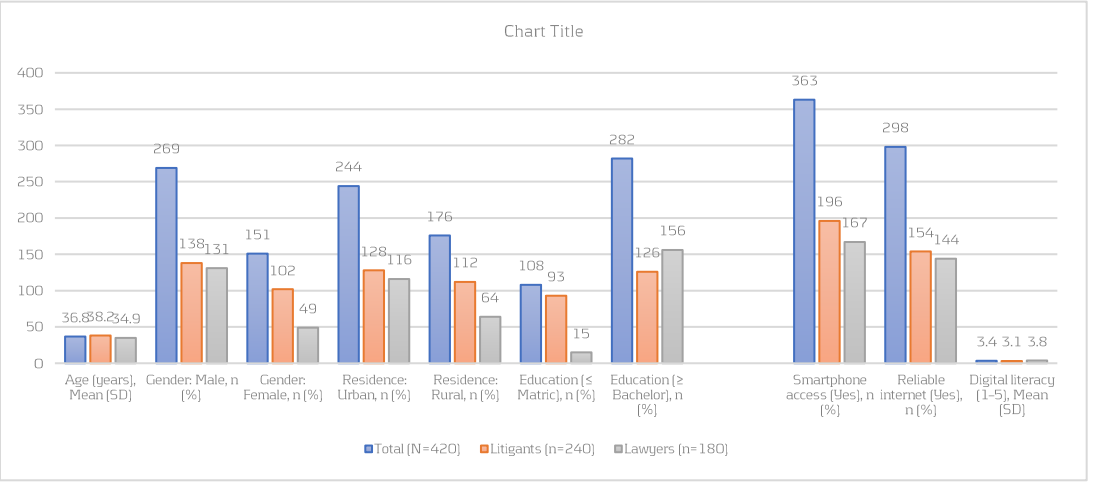
Sample Profile and Digital Readiness

A total of 420 survey respondents participated (litigants: 240; lawyers: 180) from an urban–rural mix across Punjab and Khyber Pakhtunkhwa, covering both district courts and high court benches. The overall mean age was 36.8 years (SD = 10.9), and 64.0% were male. Smartphone access was high (86.4%), but reliable internet was lower (71.0%), with rural respondents reporting significantly lower connectivity than urban respondents (61.2% vs 78.9%, $p < .001$). Self-rated digital literacy averaged 3.4/5 (SD = 1.0), and 29.5% of respondents reported needing help to use online court services at least sometimes.

Table 1. Sample characteristics (survey respondents)

Variable	Total (N=420)	Litigants (n=240)	Lawyers (n=180)
Age (years), Mean (SD)	36.8 (10.9)	38.2 (11.6)	34.9 (9.6)
Gender: Male, n (%)	269 (64.0%)	138 (57.5%)	131 (72.8%)
Gender: Female, n (%)	151 (36.0%)	102 (42.5%)	49 (27.2%)
Residence: Urban, n (%)	244 (58.1%)	128 (53.3%)	116 (64.4%)
Residence: Rural, n (%)	176 (41.9%)	112 (46.7%)	64 (35.6%)
Education (≤ Matric), n (%)	108 (25.7%)	93 (38.8%)	15 (8.3%)
Education (≥ Bachelor), n (%)	282 (67.1%)	126 (52.5%)	156 (86.7%)
Monthly income (PKR), Median (IQR)	65,000 (40,000–110,000)	55,000 (35,000–85,000)	95,000 (60,000–150,000)
Smartphone access (Yes), n (%)	363 (86.4%)	196 (81.7%)	167 (92.8%)
Reliable internet (Yes), n (%)	298 (71.0%)	154 (64.2%)	144 (80.0%)
Digital literacy (1–5), Mean (SD)	3.4 (1.0)	3.1 (1.0)	3.8 (0.8)

Figure 1



Availability and Use of Digital Court Services

Overall, 78.6% of respondents used at least one digital service. The most frequently used services were online cause lists (74.0%), case tracking/portal use (62.1%), and SMS/e-notices (68.1%). Lawyers reported significantly higher usage of e-filing and online cause lists, while litigants reported higher receipt of SMS/e-notices (all $p < .001$).

Table 2. Digital court service usage

Digital service	Total n (%)	Litigants n (%)	Lawyers n (%)	p-value
e-Filing used (Yes)	161 (38.3%)	53 (22.1%)	108 (60.0%)	<.001
Online cause list used	311 (74.0%)	142 (59.2%)	169 (93.9%)	<.001
Case tracking/portal used	261 (62.1%)	125 (52.1%)	136 (75.6%)	<.001
SMS/e-notices received	286 (68.1%)	189 (78.8%)	97 (53.9%)	<.001
Online payment used	113 (26.9%)	43 (17.9%)	70 (38.9%)	<.001
Video/hybrid hearing attended	131 (31.2%)	62 (25.8%)	69 (38.3%)	.006

Court Performance Outcomes (Administrative Records)

Administrative data were compiled for 2,480 cases (district courts: 1,920; high courts: 560) over a two-year window. The median filing-to-first-hearing time was 18 days (IQR 10–34) overall and was shorter in district courts than high courts. The median filing-to-disposal time was 310 days (IQR 160–540) overall. Hearing intensity averaged 6.2 hearings per case, with 2.3 adjournments per case. No-show rate was 9.4%, and 22.0% of hearings were conducted via video/hybrid mode where recorded.

Table 3. Caseflow indicators from administrative data (by court tier)

Indicator	Overall	District Courts	High Courts
Cases analyzed (N)	2,480	1,920	560
Filing → First hearing (days), Median (IQR)	18 (10–34)	16 (9–30)	26 (14–48)
Filing → Disposal (days), Median (IQR)	310 (160–540)	290 (150–500)	420 (240–720)
Hearings per case, Mean (SD)	6.2 (3.1)	5.8 (2.9)	7.6 (3.4)
Adjournments per case, Mean (SD)	2.3 (1.6)	2.1 (1.5)	2.8 (1.8)
No-show rate (% of hearings)	9.4%	10.1%	7.1%
Video/hybrid hearings (% of hearings)	22.0%	18.5%	34.2%

Access Outcomes for Users (Time, Cost, Travel, Visits)

Respondents who used digital services (defined as using ≥2 digital court tools) reported significantly fewer physical court visits and lower travel/time burdens. Digital users reported 4.1 visits per case compared to 6.0 among non-users ($p < .001$). Travel time per visit and median travel cost per visit were also significantly lower among digital users.

Table 4. Access outcomes: digital users vs non-users

Outcome	Digital users (n=268)	Non-users (n=152)	Difference	p-value
Physical visits per case, Mean (SD)	4.1 (2.0)	6.0 (2.4)	−1.9	<.001
Travel time per visit (minutes), Median (IQR)	55 (35–90)	85 (55–130)	−30	<.001
Travel cost per visit (PKR), Median (IQR)	650 (400–1,000)	1,100 (700–1,800)	−450	<.001
Total indirect cost (PKR), Median (IQR)	9,500 (5,500–16,000)	15,800 (9,000–28,000)	−6,300	<.001
Missed workdays, Mean (SD)	2.1 (1.6)	3.5 (2.1)	−1.4	<.001

Satisfaction, Transparency, and Perceived Fairness

Overall satisfaction averaged 3.62/5 (SD = 0.74), and transparency/information access averaged 3.78/5 (SD = 0.70). Procedural justice subscales indicated moderate-to-good perceptions: respect scored highest (3.69), while voice scored comparatively lower (3.41). All multi-item scales showed acceptable internal consistency ($\alpha \geq .79$).

Table 5. User perceptions (scale scores)

Scale (1–5 unless noted)	Items	Cronbach α	Mean (SD)
Satisfaction	6	0.88	3.62 (0.74)
Transparency/Information access	5	0.86	3.78 (0.70)
Procedural justice – Voice	4	0.82	3.41 (0.76)
Procedural justice – Neutrality	4	0.79	3.55 (0.71)
Procedural justice – Respect	4	0.84	3.69 (0.68)
Overall fairness (single item)	1	—	3.58 (0.80)

Predictors of Adoption and Satisfaction

In logistic regression, adoption was significantly higher among respondents with smartphone access, reliable internet, higher digital literacy, awareness of services, and availability of helpdesk support. Rural residence was associated with lower odds of adoption. In the satisfaction model, ease of use, reliability of notices/scheduling, and transparency were positive predictors, while connectivity problems reduced satisfaction.

Table 6. Logistic regression: predictors of digital service adoption (Yes/No)

Predictor	OR	95% CI	p-value
Age (years)	0.98	0.96–1.00	.041
Female (vs male)	0.92	0.62–1.37	.689
Rural (vs urban)	0.62	0.41–0.83	<.001
Smartphone access	2.10	1.24–3.58	.006
Reliable internet	1.85	1.25–2.74	.002
Digital literacy (1–5)	1.44	1.23–1.68	<.001
Awareness of services (Yes)	2.67	1.75–4.07	<.001
Helpdesk available (Yes)	1.58	1.08–2.31	.018
Court tier (High vs District)	1.31	0.94–1.95	.112

Table 7. Regression: predictors of satisfaction (OLS; DV = Satisfaction score)

Predictor	β	SE	95% CI	p-value
Ease of use	0.28	0.04	0.20–0.36	<.001
Reliability of notices/scheduling	0.32	0.05	0.22–0.42	<.001
Transparency score	0.21	0.04	0.13–0.29	<.001
Connectivity problems (Yes)	−0.19	0.06	−0.31–−0.07	.003
Rural (vs urban)	−0.11	0.05	−0.21–−0.01	.047

Figure 2

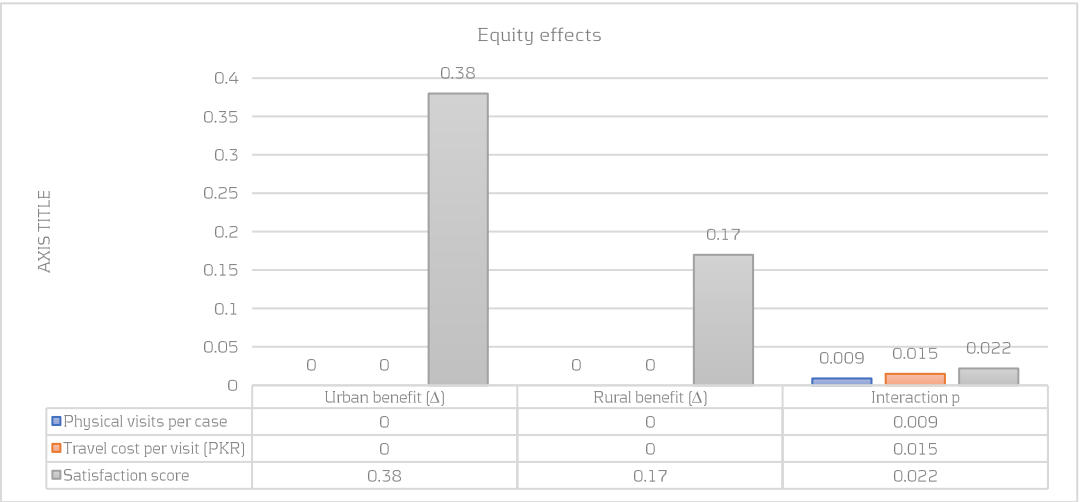
Equity Impacts and Digital Divide

Subgroup and interaction analyses indicated that the benefits of digital services were larger for urban users than rural users. Digital use reduced physical visits by 2.2 in urban settings versus 1.1 in rural settings (interaction p = .009). Reductions in travel cost and gains in satisfaction followed similar patterns, suggesting that connectivity and support infrastructure shape who benefits most.

Table 8. Equity effects (subgroup benefits and interaction tests)

Outcome	Urban benefit (Δ)	Rural benefit (Δ)	Interaction p
Physical visits per case	−2.2	−1.1	.009
Travel cost per visit (PKR)	−560	−280	.015
Satisfaction score	+0.38	+0.17	.022

Figure 3



Qualitative Findings: Bottlenecks and Enablers

Interviews highlighted five recurring themes. First, unstable electricity/internet interrupted video hearings and reduced trust in remote processes. Second, training and role clarity varied across courts, affecting data quality and user guidance. Third, legal and procedural standardization issues (especially service/notice and authentication) shaped whether users perceived digital outputs as "official." Fourth, privacy/security concerns influenced willingness to use portals and online submissions. Finally, stakeholder resistance—often linked to workload or perceived loss of control—slowed consistent adoption. Where courts had stable connectivity, clear SOPs, and visible help desks, users reported fewer missed hearings, better predictability, and stronger confidence.

Table 9. Qualitative themes and practical implications

Theme	What it affects	Typical stakeholders	Practical implication
Infrastructure reliability	video hearings, e-notices	litigants, judges, staff	stable internet, backup power
Training & SOP clarity	adoption, data quality	staff, lawyers	standardized workflows, refresher training
Legal validity/acceptance	compliance	judges, lawyers	clear rules for e-orders/service
Data privacy/security	trust	all groups	access controls, security protocols
Resistance/change management	uptake	staff, bar	consultation, incentives, phased rollout

Discussion

This study set out to examine whether digital courts can narrow Pakistan's access-to-justice gap by reducing time, cost, and participation burdens while preserving fairness and legitimacy. The results suggest that digital services are already becoming mainstream for routine court interactions: adoption was high, with online cause lists, case tracking, and e-notices emerging as the most used tools. These findings align with broader evidence that digitizing court administration can reduce transactional friction and improve service continuity, particularly when systems standardize listings, records, and communication (Sourdin et al., 2020).

A key contribution of the findings is the clear linkage between digital service use and practical access outcomes. Users who engaged with multiple digital services reported fewer physical visits, lower travel time, and reduced indirect costs—indicating that digitization can meaningfully address "distance" and "affordability," two of the most persistent barriers in Pakistan. This supports the argument that online courts can improve access primarily through process simplification and information symmetry—making case status and scheduling more predictable and reducing unnecessary attendance. Administrative indicators also point toward improved courtflow performance (shorter filing-to-first-hearing times and manageable hearing intensity where digital maturity is higher), consistent with the view that case management improvements often begin with better scheduling and records.

However, benefits were not evenly distributed. Rural users experienced weaker gains and lower odds of adoption, highlighting the digital divide as a structural constraint. This echoes digital inclusion research showing that access depends not only on connectivity but also on skills, affordability, and institutional support (Jamil, 2021). Importantly, helpdesk availability and service awareness were strong predictors of adoption, suggesting that "access" is partly produced inside the courthouse through guidance, assisted digital channels, and clear SOPs—consistent with recommendations for adaptive and user-centered online court design (Sela, 2021).

Perceived fairness results were generally positive but revealed a subtle risk: "respect" and neutrality scored higher than "voice." Qualitative findings help explain this pattern—connectivity issues, audio disruptions, and procedural uncertainty can reduce users' sense of being heard in remote settings, even when efficiency improves. This aligns with procedural justice research emphasizing that legitimacy hinges on meaningful participation and respectful treatment, not only speed (Legg, 2021). Privacy and security concerns also emerged as trust-sensitive issues, reinforcing that digital courts must be built with strong governance safeguards and transparent data-handling practices to sustain public confidence.

Overall, the evidence indicates that digital courts can bridge parts of Pakistan's access-to-justice gap—especially by lowering cost and travel burdens—but only if investments in connectivity, assisted access, standardized workflows, and privacy-by-design accompany technological rollout.

Conclusion

This study assessed whether digital courts can bridge Pakistan's access-to-justice gap by improving timeliness, affordability, and user experience while safeguarding fairness and legitimacy. The findings indicate that digital court services—particularly online cause lists, case tracking, and e-notices—are already functioning as high-impact tools because they reduce information barriers and improve predictability of court processes. Users who engaged with multiple digital services reported fewer physical court visits, lower travel burdens, and reduced indirect costs, suggesting that digitization can meaningfully narrow the "distance" and "affordability" dimensions of the access-to-justice gap. Administrative indicators also point toward potential efficiency gains where digital workflows are more mature, especially in early-stage scheduling and routine case handling.

At the same time, the benefits of digitization are uneven. Rural and low-income users faced lower adoption and smaller gains, highlighting that the access-to-justice gap can reappear as a digital divide when connectivity, device access, and digital skills are limited. Procedural justice findings also underline that efficiency improvements must not weaken meaningful participation: users' sense of "voice" can be reduced when remote processes are undermined by poor audio/connection quality or unclear procedures. Concerns around privacy, security, and the legal validity of digital processes further demonstrate that digital courts must be treated as a governance reform, not only a technology upgrade.

Accordingly, the study concludes that technology can bridge Pakistan's access-to-justice gap conditionally—when digitization is paired with assisted access (help desks, kiosks, multilingual guidance), standardized SOPs, training for court staff and the bar, and privacy-by-design protections. Policy priorities should focus on strengthening infrastructure reliability, making digital services inclusive for vulnerable groups, and embedding procedural fairness safeguards into remote and hybrid workflows. Future research should expand to longitudinal evaluations using larger administrative datasets and equity-focused user studies across provinces to identify which digital court components deliver the greatest access gains and under what institutional conditions.

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