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RESEARCH ARTICLE

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Beyond Transactional Volume: A Thematic Review of Digital Police Reform, Procedural Justice, and Institutional Legitimacy in Punjab, Pakistan

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Abstract: Since 2015, the Punjab Police have digitised at scale through Front Desks, the Police Station Record Management System (PSRMS), Police Khidmat Markaz service centres, Safe City command-and-control, and the 15-emergency line. These reforms are measured by transactional volume, yet public trust in the police remains low. This thematic narrative review of research, legal sources, and policy evidence on reform initiatives from 2015 to 2026 explains this decoupling. Integrating procedural justice theory, street-level bureaucracy and institutional sociology, it develops a Four-Type Analytical Typology that crosses digital-infrastructural intensity with institutional-procedural coupling: Ceremonial Digitalisation, Coupled Transformation, Entrenched Colonial Informality and Relational Enclaves. Assessed against the typology, Punjab's flagship initiatives cluster in the ceremonial type. They have been layered onto financially starved police stations (thanas), colonial-era legal powers and patronage-driven postings that remain unreformed. Discretion is therefore not removed but relocated upstream of the digital record, where officers practise "Digital Jugaad": satisfying dashboard requirements while preserving informal resource extraction. The result is a Digital Service Paradox in which throughput rises while voice, neutrality, respect and trustworthy motives remain unchanged, especially for women, the rural poor and the khawaja sira community. Theoretically, the review recasts bureaucratic inertia as isomorphic mimicry and means–ends decoupling rather than resistance to technology. Practically, it identifies five levers for re-coupling digital reform to legitimacy: procedural-justice metrics with independent data audits, audited station operating budgets, insulated postings, voice-centred platform design and improved constable working conditions.

Keywords: Procedural Justice, Police Legitimacy, Institutional Isomorphism, Decoupling, Street-Level Discretion, Pakistan

Introduction, Problem Statement, and Institutional Context

The Problem: Transactional Volume Without Legitimacy

Governments across the developing world have turned to digitalisation to remedy weak service delivery, corruption and administrative opacity. The evidence that this builds trust is conditional: a systematic review of 55 studies from developing countries finds that e-government supports trust through service quality, transparency and participation only where the institutions behind the interface are reliable and local conditions, such as technological literacy, permit (Nyadzi & Morris, 2026). Punjab, a province of more than 110 million people (Malik & Qureshi, 2021), is a demanding test case. Since 2015, the provincial police and the Punjab Information Technology Board (PITB) have introduced computerised Front Desks for complaint and First Information Report (FIR) registration (Chattha et al., 2019), the Police Station Record Management

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System (PSRMS; Afzal & Panagiotopoulos, 2024), Police Khidmat Markaz (PKM) one-window service centres, digital complaint management, and camera-based Safe City command-and-control (Hong, 2022).

The evidence on legitimacy points elsewhere. The police remain among Pakistan's least trusted institutions (Hassan, 2025); in Lahore, experience of police corruption erodes judgements of police fairness, effectiveness and legitimacy (Jackson et al., 2014); and the Front Desk project progressively absorbed the station culture it was designed to reform (Shahid et al., 2021). relational foundations of legitimacy stay unchanged.

Institutional Context: The Thana as the Site of Reform

The police station is where citizens meet the coercive state, and its institutional architecture predates digitalisation by more than a century. Three features shape how any reform lands there.

First, legitimate succession. The Police Act 1861, passed after the 1857 uprising to create an obedient and coercive force, continues to shape policing. Since 1947, twenty-one reform commissions have been constituted, but little has been actually implemented. Preventive powers under Section 16 of the Maintenance of Public Order Ordinance 1960 and Section 144 of the Code of Criminal Procedure continue to concentrate discretionary authority in the executive (Malik & Qureshi, 2021). The Police Service of Pakistan still considers its mission to be order maintenance and treats the public as subjects to be controlled, not as citizens to be served (Khan et al., 2023).

Second, fiscal starvation. Salaries and allowances make up about 88% of the provincial police budget, leaving stations with little money to operate on fuel, stationery, utilities, and forensic fees. In the period studied by Malik and Qureshi (2021), constables earned about PKR 12,800 a month and routinely worked 16- to 18-hour days without overtime. Stations therefore depend on *akhpal bandobast* ("self-arrangement"): informal revenue generated through commissions, protection money, and payments for registering or suppressing FIRs. Senior officers, in turn, extract goods and services from stations through the *fatik* system (Malik & Qureshi, 2021).

The third is political patronage. Postings of District Police Officers (DPOs) and Station House Officers (SHOs) are bargaining chips in constituency politics. Officers who resist unlawful political instructions risk being made an Officer on Special Duty (OSD), stripped of command, and political patrons routinely soften departmental penalties (Malik & Qureshi, 2021). Malik and Qureshi (2021) report a Superintendent who banned all illicit collection, only to find patrol vehicles idle by evening for want of diesel; the next morning he restored the old practices, excluding bribes in criminal investigations.

Gap, Research Questions, and Approach

Three literatures rarely meet in this setting. Police legitimacy research rests largely on Western data, and its assumptions travel imperfectly to postcolonial settings where corruption and ineffectiveness can crowd out procedural judgements (Chan et al., 2025; Jackson et al., 2026). Research on digital discretion is concentrated in Europe and North America and stresses context dependence (Busch & Henriksen, 2018). Scholarship on Pakistani policing documents corruption, politicisation and informality (Malik & Qureshi, 2021; Waseem, 2021) and has begun to examine officers' responses to PSRMS (Afzal & Panagiotopoulos, 2024), but it has not theorised why digital reform leaves legitimacy unchanged. This review integrates the three strands through institutional theory, specifically isomorphism and decoupling (DiMaggio & Powell, 1983; Meyer & Rowan, 1977), and asks one main question and three sub-questions:

RQ: Why has high-volume digital reform in the Punjab Police not translated into procedural justice and institutional legitimacy?

SQ1: How do digital performance metrics interact with informal resource extraction and street-level discretion at the thana?

SQ2: Which components of procedural justice can digital systems plausibly deliver, and which remain dependent on face-to-face encounters?

SQ3: Which institutional levers could move Punjab's reforms from symbolic towards substantive compliance?

The paper is a thematic narrative review, a design suited to interpretive questions that span disciplines and evidence types rather than to statistical pooling (Snyder, 2019). The scholarly literature was supplemented with legal sources and official reports. The timeline goes from 2015 (the launch of the Front Desk initiative) to 2026. The work gave priority to Pakistani and South Asian evidence and to international work that was crucial to the theories used. The material was coded into five themes (legitimacy and trust; digital control and discretion; resource scarcity and informality; political patronage; vulnerable groups) and then synthesized into the typology presented in Section two. The goal is not an exhaustive enumeration; it is interpretive synthesis.

Conceptual Architecture and the Four-Type Analytical Typology

Legitimacy: Procedural and Instrumental Foundations

Two models explain why citizens defer to the police. The instrumental model locates compliance in self-interest, perceived sanction risk, and police effectiveness. Procedural justice theory holds that legitimacy, the felt obligation to obey, rests mainly on whether authorities exercise power fairly (Tyler, 2006). In New York, procedural fairness was the strongest antecedent of legitimacy, ahead of risk, performance, and distributive fairness (Sunshine & Tyler, 2003). Fairness has four components: *voice*, the opportunity to present one's account; *neutrality*, rule-based decision-making free of status or political bias; *respect*, dignified treatment that acknowledges rights; and *trustworthy motives*, the perception that officials act in good faith (Mazerolle et al., 2013). These components carry relational messages about the citizen's standing. A meta-analysis of 123 studies finds that social identity mediates the relationship between procedural justice and legitimacy, and that the relationship is weaker in less developed countries (Chan et al., 2025).

Cross-national evidence from 30 countries confirms procedural justice as the strongest predictor of legitimacy, with its influence greatest where fair policing is the norm (Jackson et al., 2026). Pakistani evidence is mixed. In Lahore, where minimum standards of integrity and effectiveness are unmet, legitimacy depends on procedural fairness but also on crime control and ethical conduct (Jackson et al., 2014). Comparing Lahore and Peshawar, Hassan (2025) finds that procedural evaluations (investigation time, access to information, respect for rights) predict trust in both cities. Two implications follow. Digital reform can enhance legitimacy only if it changes how people are treated, not merely how quickly they are recorded.

Street-Level Discretion in a Digital Bureaucracy

Street-level bureaucracy theory holds that frontline officials, facing chronic resource shortfalls and ambiguous goals, effectively make policy through their discretionary routines (Lipsky, 1980). Digitalisation was expected to curtail that discretion. Bovens and Zouridis (2002) anticipated a shift from street-level to system-level bureaucracy, in which software designers structure decisions. Later evidence is more equivocal: information systems can strengthen consistency but weaken relational judgement, and officials cope with rigid systems by bending rules or prioritising some clients (Busch & Henriksen, 2018). In Norway, digitalisation standardised and de-contextualised police discretion, reviving Taylorist principles of divisible, measurable work (Gundhus et al., 2022a). We use *Digital Taylorism* for such top-down systems, which decompose police work into countable units monitored through dashboards.

Discretion, however, is displaced rather than eliminated. In a US police department and criminal court, predictive tools pushed discretion into less visible zones and met resistance through foot-dragging and data obfuscation (Brayne & Christin, 2021). In Kerala, algorithmic systems shielded junior personnel behind interfaces and made their discretion less visible to the public (Varghese, 2025). Performance targets compound the problem. Target regimes reproduce gaming that central managers accept at face value (Hood, 2006); CompStat was associated with more minor arrests, data manipulation, and no reduction in serious

crime (Eckhouse, 2022); and a quarter of 2,248 Norwegian police employees reported manipulating figures in the previous year, particularly where indicators diverted them from serving the public (Gundhus et al., 2022b). If well-funded forces game metrics, the incentive is stronger where stations lack operating funds, and officers work extreme hours. In Punjab, the 292 officers surveyed by Afzal and Panagiotopoulos (2024) after PSRMS adoption judged the system's value according to how much control and discretion they retained.

Isomorphism and Decoupling: Symbolic Versus Substantive Compliance

Institutional sociology explains why organisations adopt reforms that leave core practice intact. Organisations gain legitimacy and resources by conforming to rationalised myths in their environment, and they protect their technical core by decoupling formal structure from actual activity (Meyer & Rowan, 1977). Convergence on such structures occurs through *coercive* pressure from those on whom an organisation depends, *mimetic* imitation of apparently successful models under uncertainty, and *normative* pressure from professional groups (DiMaggio & Powell, 1983). In developing states, Pritchett et al. (2013) call the result *isomorphic mimicry*: organisations adopt the forms of capable states (laws, agencies, systems) without their functions, so persistent implementation failure is masked by visible modernisation.

Bromley and Powell (2012) distinguish two kinds of decoupling, and the distinction is central here. *Policy–practice decoupling* occurs when a formal policy is adopted but not implemented. *Means–ends decoupling* occurs when a policy is implemented, often intensively, but the implemented activity is only weakly connected to the underlying goal. The latter is the characteristic risk of metric-driven reform. A Front Desk that is installed but bypassed is policy–practice decoupling; a records system used intensively to generate dashboard-compliant entries while FIR gatekeeping persists is means–ends decoupling. Information-systems research on developing countries adds a design–reality dimension: projects fail when the assumptions built into system design diverge from the institutional reality of users, who respond with local improvisation (Heeks, 2002). On this basis, we distinguish *symbolic compliance*, conformity with a system's recording requirements, from *substantive compliance*, change in the treatment citizens receive.

Jugaad, Policy Repair, and Digital Jugaad

In South Asia, local improvisation has a name. *Jugaad* denotes improvised and often informal solutions; in policing in Uttar Pradesh, it serves both as a euphemism for corruption and as a description of the necessary work of getting by, a form of “provisional agency” (Jauregui, 2014). Pakistani research shows informality embedded in the state itself. Waseem (2021) describes “procedural informality”, whereby police COVID-19 policies were issued on the tacit assumption that they would be implemented informally. Masood and Nisar (2022) document “policy repair” among Punjab's frontline bureaucrats, who improvise to keep services running under shortages of staff, equipment and workable procedures. The skills that repair broken procedures can equally bend digital ones. We define *Digital Jugaad* as the extension of these improvisational repertoires into digital systems: satisfying software requirements while preserving informal revenue arrangements and political alignments. Digital Jugaad is the street-level mechanism through which means–ends decoupling is produced.

The Four-Type Analytical Typology

Table 1 synthesises these strands by crossing two dimensions. *Digital-infrastructure intensity* is the extent of computerisation, centralised data capture and dashboard monitoring. *Institutional-procedural coupling* is the extent to which a reform reaches the thana's resource base, the control of postings and internal accountability, and the four components of procedural justice in face-to-face encounters. Keeping the two dimensions separate shows that technological intensity and institutional depth vary independently, and that the former is no proxy for the latter.

Table 1*The Four-Type Analytical Typology of Digital Police Reform*

Type	Digital intensity	Coupling	Institutional logic	Street-level response	Legitimacy outcome
I. Ceremonial Digitalisation (Digital Taylorism)	High	Low	Mimetic and coercive isomorphism; means–ends decoupling	Digital Jugaad; symbolic compliance; gaming at the point of entry	Rising throughput, static trust (Digital Service Paradox)
II. Coupled Transformation	High	High	Substantive institutionalisation of reform	Substantive compliance; discretion visible and accountable	Durable, broad-based legitimacy
III. Entrenched Colonial Informality	Low	Low	Path-dependent inertia	Resistance through non-adoption; <i>akhpal bandobast</i> and <i>fatik</i>	Fear, avoidance and low trust
IV. Relational Enclaves	Low	High	Local, commitment-driven coupling	Policy repair; substantive but unscaled	Localised trust, fragile to transfers and political disruption

Note. Developed by the authors from the literature reviewed in Sections 1 and 2. Types are ideal types; a single police force may contain elements of all four.

Each type corresponds to a distinct mode of institutional adaptation or resistance. Type III resists overtly, through non-adoption. Type I adapts symbolically, absorbing technology without altering practice. Type IV adapts substantively but locally, through the commitment of individual officers or units. Only Type II institutionalises substantive change.

The typology is dynamic too. The path of least resistance from Type III runs horizontally to Type I. All the transactional indicators improve, which makes it easy to mistake such a trajectory along this horizontal path for reform. The critical movements are vertical: Type III to Type IV, when committed officers or units change encounters without new technology, and Type I to Type II, when current digital capacity is connected to resources, accountability, and procedural standards. Type I is not, then, a stepping-stone to Type II; It can be a stable end state without deliberate coupling, and one harder to reform than Type III as its throughput data give critics easy answers. The three propositions are:

P1. Where digital intensity rises without coupling (the movement from Type III to Type I), discretion shifts to the point of data entry, and gaming increases.

P2. Transactional metrics improve fastest for low-stakes, non-adversarial services that bypass the thana, and slowest for the high-stakes encounters (FIR registration, investigation, detention) in which legitimacy is formed.

P3. Movement to Type II requires progress on coupling, which technology alone cannot supply; Type IV enclaves demonstrate feasibility but need institutional backing to scale.

Empirical Assessment: 2015–2026 Initiatives Versus Substantive Metrics

This section categorizes Punjab's key initiatives according to the typology and contrasts the transactional metrics by which each is managed with the evidence available on substantive outcomes (Table 2). The assessment has one caveat. These systems produce lots of data on throughput and almost none on how citizens are treated.

Front Desks: Policy–Practice Decoupling and Reversion

The Front Desk project, introduced in 2015, computerized complaint and FIR registration at police stations by dedicated, specially trained staff (Chattha et al., 2019). It was the most direct effort to create voice and neutrality at the point of entry. But Shahid et al. (2021) demonstrate how it moved away from its original purpose as a service to become the culture of the station around it. From a typological perspective, the Front Desk was an attempt at Type II at the point of entry. However, without linkage to station finance and supervision, it degenerated toward Type I and, in parts, Type III. This is policy – practice decoupling: the desk remains formal, gatekeeping elsewhere in the station. The lesson is structural. A reception interface cannot sustain neutral registration when the station’s finances depend on the negotiability of registration itself (Malik & Qureshi, 2021; Tahir et al., 2026).

PSRMS: Means–Ends Decoupling in Records Management

PSRMS integrated station registers into a centralised digital record, allowing senior officers to monitor case processing remotely. It is the archetypal Type I system: it increases the visibility of what is recorded while leaving untouched the decision about what gets recorded. Officers adopted a range of problem- and emotion-focused coping strategies, and their evaluations of the system depended on the discretion they retained (Afzal & Panagiotopoulos, 2024). As Bromley and Powell (2012) note, this is means–ends decoupling, in which intensive use is compatible with unchanged practice. FIR non-registration, linked to political pressure, corruption, bias against vulnerable complainants and fear of rising crime statistics (Tahir et al., 2026), occurs upstream of the database. A records system that measures processing time from the moment of entry can therefore register improvement while the most consequential discretion goes unrecorded.

Police Khidmat Markaz and Digital Complaints: Bypass Digitalisation

PKM centres provide one-window access to routine, non-adversarial services such as character certificates, verifications and licensing, and digital complaint channels let citizens report grievances without attending a station. These are the reforms most likely to generate measurable citizen satisfaction, precisely because they route around the thana. We call this *bypass digitalisation*. It brings real gains in convenience and reduces opportunities for petty extraction in low-stakes transactions, consistent with evidence that reliable e-services raise satisfaction (Nyadzi & Morris, 2026). But it leaves untouched the encounters in which legitimacy is formed (registering a contested complaint, investigation, arrest, detention), as P2 predicts. In the absence of independent evaluation, its reach among rural, female and marginalised users is also unknown. Bypass digitalisation is best classified as Type I with partial Type IV features: it improves treatment in routine transactions without coupling to the thana.

Safe City, 15 Emergency, and Field E-Gadgets: Surveillance as Signalling

Safe City camera networks and integrated command-and-control centres, linked to the 15 emergency line, represent the largest capital investment of the period. Hong (2022) shows that Pakistan’s Safe Cities function as knowledge infrastructures of the security state, signalling modernity, professionalism and efficiency while remaining silent on how citizens are treated at the station. This is mimetic isomorphism in its clearest form: the adoption of globally legitimated smart-city templates under uncertainty about what works (DiMaggio & Powell, 1983). The 15 emergency line makes the point. “Some of the most legible in the system are the natural metrics: calls received, response times, and real improvements in dispatch can matter to victims. But these are metrics of the efficiency of dispatch, not of what happens when the dispatched officer meets the citizen or the case lands in the thana. The same logic applies to handheld field-verification devices (the “e-gadgets”) used at picket lines to run people against police databases: they multiply recorded checks, while extending discretionary stop powers not measured for fairness. The Sindh experience warns against equating digital capacity with outcomes. There, information technology averaged 1.3 percent of the police budget over

2015-2025; allocations were underutilized, and crime-mapping and predictive tools produced no measurable reduction in major crime (Soomro, 2026).

Internal Accountability: Upward Visibility Without Answerability

Digitalization has improved vertical visibility across these initiatives. Registrations, case timelines, and dispatch records are now available to senior officers in near real time, but visibility is not accountability. Accountability means an obligation to explain conduct to a forum that has the power to impose consequences. In Punjab, however, the consequences are still mediated by the same patronage networks that the data might expose. Political patrons intervene to undo or mitigate departmental penalties, and the officers who oversee the dashboards owe their own postings to political patronage (Malik & Qureshi, 2021). The Fatik system complicates the situation further, because senior officers who ‘milk’ unbudgeted goods and services from stations are also involved in the informal finance that dashboards may reveal (Malik & Qureshi, 2021). Given these conditions, it is unlikely that digital records are used consistently for discipline. There is a reasonable risk that they will be used in a selective manner against officers who have no protection, as the systemic pattern remains unaddressed. Bovens and Zouridis (2002) cautioned that system-level bureaucracy poses new questions of due process. In Punjab, the more immediate question is who controls the use of the record. Dashboards whose data are visible only within the hierarchy convert digital capacity into supervisory control without creating external, citizen-facing accountability, which is the dimension most closely linked to legitimacy.

Substantive Metrics: What Has Not Moved

Against these transactional gains, the substantive indicators are static or unmeasured. On *trust*, the police remain among the least trusted institutions, and in Lahore, which is more exposed to political interference than Peshawar, trust is less responsive to police performance (Hassan, 2025). On *entry-point discretion*, FIR non-registration remains a central everyday failure of criminal justice (Tahir et al., 2026). On the *resource base*, no initiative has altered the salary-heavy budget structure or the station’s dependence on akhpal bandobast (Malik & Qureshi, 2021). On *vulnerable groups*, transgender women in Punjab describe legitimacy deficits accumulated through repeated discretionary refusals, disrespect and institutional non-response rather than isolated incidents (Abidin & Husin, 2026a), and khawaja sira interviewees in Swat report neglect in case registration and biased treatment in stations (Tripathi et al., 2025). Groups turned away before entry are, by construction, absent from the data used to judge performance.

Two contrasting cases indicate that coupling, not technology, is the operative variable. In Khyber Pakhtunkhwa (KP), the Police Act 2017 reduced political control; interviewees reported stronger political will to depoliticise the force and improved community relations (Nawab et al., 2019), and trust in Peshawar tracks performance more closely than in Lahore (Hassan, 2025). This is a partial movement towards Type II, achieved with modest digital intensity. In Multan, the Police Tahaffuz Markaz, which offers shelter and support to vulnerable people, recorded a clear rise in transgender complainants between 2023 and 2025, despite persistent under-reporting and limited resources (Gulzar, 2025): a Type IV enclave.

Table 2

Classification of Punjab’s Digital Policing Initiatives and Comparators, 2015–2026

Initiative	Primary transactional metric	Substantive evidence	Dominant decoupling	Type
Front Desks (2015–)	Complaints and FIRs computerised	Drift towards station culture (Shahid et al., 2021)	Policy–practice	I, regressing to III
PSRMS	Records digitised; processing time	Use contingent on retained discretion (Afzal & Panagiotopoulos, 2024); gatekeeping upstream of entry (Tahir et al., 2026)	Means–ends	I

Initiative	Primary transactional metric	Substantive evidence	Dominant decoupling	Type
PKM and digital complaints	Services delivered; complaints logged	No independent evaluation identified; bypasses the thana	Means–ends (bypass)	I, partial IV
Safe City, 15 Emergency, e-gadgets	Cameras, calls, response times, checks	Signals modernity; silent on treatment (Hong, 2022)	Means–ends (mimetic)	I
KP Police Act 2017 (comparator)	Structural rather than transactional	Depoliticisation; trust tracks performance (Hassan, 2025; Nawab et al., 2019)	Coupled	Towards II
Police Tahaffuz Markaz, Multan	Complainants served	Rise in transgender complainants (Gulzar, 2025)	Coupled, local	IV

Note. Classification by the authors using the typology in Table 1.

Discussion: Isomorphism, Discretion, and Procedural Justice

Isomorphism: Why Punjab Gravitates to Type I

Why are Punjab’s reforms generally limited to Type I? The answer lies less in the resistance of officers to technology and more in the incentives of the principals of reform. They are all isomorphic pressure points in the same direction. A political executive that coercively controls postings (Malik & Qureshi, 2021) has an incentive to prefer visible, attributable deliverables such as dashboards and command centers over station budgets and tenure protection, which would constrain its own patronage. Smart city and e-governance templates mimetically imbue uncertainty with modernity (Hong, 2022). We normatively suggest that reform is defined by a technocratic IT cadre, centered on the PITB, in terms of system deployment, with success measured by adoption and throughput.

Type I reform is thus not only an implementation failure but a stable equilibrium. It helps the state to appear as a competent state (Pritchett et al., 2013), while maintaining the arrangements that support the political control of the police: patronage over postings and informal station finance. On this reading, bureaucratic inertia is not passive resistance to change, but the active reproduction of a structure that works for its principals. The colonial order-maintenance outlook (Khan et al., 2023) provides the cognitive frame.

Discretion: Digital Jugaad and the Relocation of Power

Where digital intensity rises without coupling, Digital Jugaad is the predictable street-level response (P1). The gaming literature suggests three forms. Because direct evidence from Punjab remains limited, they are offered as propositions rather than established findings.

Delayed Entry: Complaints are entered only after informal negotiation is settled, so that recorded processing times appear compliant. This is the digital extension of FIR delay (Tahir et al., 2026).

Selective Entry: Minor, uncontroversial incidents are logged promptly to build volume, while politically sensitive cases are kept off the system, the pattern of selective recording found in Norway (Gundhus et al., 2022b).

Proxy Generation: Easily counted activity (stops, checks, rapid administrative closures) is produced to meet quotas, mirroring CompStat’s inflation of minor arrests without any effect on serious crime (Eckhouse, 2022). Each form pushes discretion to the periphery of the record where it is least visible (Brayne & Christin, 2021; Varghese, 2025). Dashboards push information up to supervisors, not out to citizens, reinforcing hierarchical control but not public accountability. This is Lipsky’s (1980) insight in digital form. Where resources do not meet formal goals, frontline workers ration and reshape service, and the system records the reshaped version.

Procedural Justice: What Digital Systems Can and Cannot Deliver

The four components of procedural justice offer a direct test of digital reform (Q2). Two are partially digitizable. Online complaints and case tracking can widen voice by reducing reliance on gatekeepers, and

rule-based workflows and auditable timestamps can support neutrality. Two aren't. Respect and motives that can be trusted play out face to face, in the tone of the duty officer and the conduct of the investigating officer. Because social identity mediates the effect of procedural justice on legitimacy (Chan et al., 2025), these encounters carry disproportionate weight: they tell citizens whether they belong to the community the police serve. For groups whose relationship with the police has been defined by refusal, including *khawaja sira* persons, women complainants and rural poor people without *sifarish* (connections), the relational signal of a turned-away complaint outweighs any efficiency gain elsewhere (Abidin & Husin, 2026a; Tripathi et al., 2025). Evidence from India shows that reform at the entry point can change recorded outcomes when it is staffed and institutionalised. In a randomised trial across 180 police stations, women's help desks increased the registration of gender-based violence cases, particularly where female officers staffed them (Sukhtankar et al., 2022). The desks worked because they changed who controlled the entry point, which is a coupling intervention, not because they digitised it.

Rival Explanations and Boundary Conditions

Three qualifications bound the argument. First, digital systems are not inert. Bypass services reduce station visits and petty extraction in routine transactions, and centralised records create audit trails that could support accountability under different governance. The problem is under-coupling, not digitalisation. Second, low trust may reflect instrumental failures in crime control and effectiveness, as much as procedural ones (Jackson et al., 2014). The typology therefore predicts that coupling reforms will raise trust only where minimum effectiveness is also met. Third, Digital Jugaad is inferred from comparative evidence and partial Pakistani signals (Afzal & Panagiotopoulos, 2024; Shahid et al., 2021) and still awaits direct observation. The argument is falsifiable on this point: if digitally intensive stations show no systematic gap between administrative logs and independent records, the means–ends decoupling claim fails.

Answering the Research Questions

On the main question, the evidence indicates that digitalisation in the Punjab Police has been layered onto colonial legal powers, fiscal starvation and political patronage rather than replacing them, producing a Type I equilibrium of ceremonial digitalisation. On SQ1, digital metrics do not by themselves reduce informal extraction; they are more likely to relocate it to the points at which records are created, through delayed entry, selective entry and proxy generation. SQ2, digital systems can expand voice and help support neutrality, but respect and trustworthy motives depend on face-to-face encounters; hence, bypass services make people happier without changing legitimacy. On SQ3, the decisive levers are coupling levers (station finance, insulated postings and procedural-justice metrics), with platform design being supportive.

Conclusion, Policy Implications and Institutional Pathways

This review has argued that the introduction of e-governance platforms across the Punjab Police has not, in itself, sorted out the deeper problems of police legitimacy. The Digital Service Paradox is when digital systems are imposed onto a resource-starved, politically controlled institutional structure that still uses colonial-era law. Here, dashboards monitor increasing volumes of transactions, but public confidence is low and frontline officers may resort to Digital Jugaad to achieve targets and continue with informal practices. The theories discussed in Section two account for why this matters: legitimacy depends on fair and respectful treatment and basic integrity, not the speed of record-keeping. Section 3 looks at the evidence that explains why this is so. The thana is short of funds, its staff is poorly paid and overworked, and postings are shaped by political patronage.

Comparative experience suggests that entrenched police corruption can be reduced when political leaders are willing to support structural, financial and administrative reform (Quah, 2006, 2010, 2020). It leads to the following considerations.

Levers for Re-Coupling

The typology reframes the question of policy. The issue is not further digitization, but linking existing digital capacity with the thana's resource base, accountability structures, and everyday encounters. The focus is on vertical movement from Type I to Type II (SQ3) because the programs in Punjab are already at high digital intensity.

Re-couple Metrics to Procedural Justice (Type I to II): PITB dashboards should replace volume and speed indicators with measures of investigation quality, citizen-reported fair treatment (brief post-contact surveys on voice, neutrality, respect, and trustworthy motives), and compliance audits. Because volume targets without independent data checks invite gaming (Eckhouse, 2022; Gundhus et al., 2022b; Hood, 2006), administrative logs should be reconciled routinely with court records, medico-legal data and victimisation surveys.

Fund the Thana Directly (Types III and I to II): A formula-based, digitally audited operating allowance for fuel, stationery, forensic fees and utilities would remove the operational rationale for akhpal bandobast (Malik & Qureshi, 2021). Its level should be set through station-level costing, and the Sindh experience shows that allocated but unspent technology budgets also require monitoring (Soomro, 2026).

Insulate Postings (Type I to II): Statutory minimum tenures for DPOs and SHOs, merit-based posting boards, and an end to the punitive use of OSD status would weaken the patronage that sustains informal station finance. The KP comparison suggests that depoliticisation strengthens the link between performance and trust (Hassan, 2025; Nawab et al., 2019).

Design for Voice and Respect (Scaling Type IV): Adapting the RESPECT and TRUST models developed from a phenomenological study of transgender people and police officers in Punjab (Abidin & Husin, 2026b), citizen-facing platforms should offer secure, anonymised reporting routes that bypass gatekeeping for khawaja sira persons and survivors of gender-based violence; SMS-based tracking of FIR applications and assigned investigating officers; Urdu and regional-language interfaces usable by people with limited literacy; plain-language rights information; and public, anonymised audit trails of registration delays. Internal systems should track station budgets, enforce rostering limits and provide confidential mental-health support. Training must be paired with protocols and accountability mechanisms, which both officers and transgender women in Punjab regard as indispensable (Abidin & Husin, 2026a).

Improve Constable Working Conditions: Enforced eight-hour shifts, weekly rest, medical cover, and progress towards a living wage would reduce both survival-driven extraction and the stress that degrades encounters with the public (Malik & Qureshi, 2021). Sequencing matters. Levers 2 and 3 are about the structural conditions that make Digital Jugaad rational; Lever 1 is about changing what the system rewards; Levers 4 and 5 are about improving the encounter itself. Redesigned metrics alone would welcome new forms of gaming, and new platforms would be adopted into existing station practice, as was the case with the Front Desk.

Limitations and Research Agenda

The review relies on published English-language and secondary sources rather than fieldwork. Three research priorities follow. First, independent evaluation is needed of whether PITB platforms widen access to justice or institutionalise gatekeeping (Shahid et al., 2021). Second, Digital Jugaad should be tested directly by reconciling station logs with independent records and through observational fieldwork in stations (Masood & Nisar, 2022; Waseem, 2021). Third, procedural justice should be measured among groups absent from administrative data, including khawaja sira persons and rural women.

Punjab has built substantial digital capacity on unreformed foundations. The resulting Digital Service Paradox is neither a technological failure nor simple bureaucratic resistance. It is an institutional equilibrium of ceremonial digitalisation, sustained by isomorphic pressure and reproduced at street level through Digital Jugaad. Digital reform will build legitimacy only when it is coupled to adequate station budgets, protection from political interference, procedural-justice metrics, and humane conditions for the constables who meet the public.

References

- Abidin, M. Z., & Husin, A. (2026a). Gendered policing and trust: Transgender experiences and police education reform in Pakistan. *Policing and Society*. Advance online publication. <https://doi.org/10.1080/10439463.2026.2672708>
- Abidin, M. Z., & Husin, A. (2026b). Trust, trauma, and safety: A phenomenological study of transgender-police relations in Punjab, Pakistan. *International Journal of Transgender Health*, 27(3), 1655–1672. <https://doi.org/10.1080/26895269.2025.2537876>
- Afzal, M. Y., & Panagiotopoulos, P. (2024). Coping with digital transformation in frontline public services: A study of user adaptation in policing. *Government Information Quarterly*, 41(4), Article 101977. <https://doi.org/10.1016/j.giq.2024.101977>
- Bovens, M., & Zouridis, S. (2002). From street-level to system-level bureaucracies: How information and communication technology is transforming administrative discretion and constitutional control. *Public Administration Review*, 62(2), 174–184. <https://doi.org/10.1111/0033-3352.00168>
- Brayne, S., & Christin, A. (2021). Technologies of crime prediction: The reception of algorithms in policing and criminal courts. *Social Problems*, 68(3), 608–624. <https://doi.org/10.1093/socpro/spaa004>
- Bromley, P., & Powell, W. W. (2012). From smoke and mirrors to walking the talk: Decoupling in the contemporary world. *Academy of Management Annals*, 6(1), 483–530. <https://doi.org/10.5465/19416520.2012.684462>
- Busch, P. A., & Henriksen, H. Z. (2018). Digital discretion: A systematic literature review of ICT and street-level discretion. *Information Polity*, 23(1), 3–28. <https://doi.org/10.3233/IP-170050>
- Chan, A., Bradford, B., & Stott, C. (2025). A systematic review and meta-analysis of procedural justice and legitimacy in policing: The effect of social identity and social contexts. *Journal of Experimental Criminology*, 21(2), 349–406. <https://doi.org/10.1007/s11292-023-09595-5>
- Chattha, S. J., Batool, B., & Farooq, M. S. (2019). Modernization of Front Desk Project (FDP) training curriculum for Punjab Police. *IJAEDU - International E-Journal of Advances in Education*, 5(14), 222–230. <https://doi.org/10.18768/ijaedu.531553>
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160. <https://doi.org/10.2307/2095101>
- Eckhouse, L. (2022). Metrics management and bureaucratic accountability: Evidence from policing. *American Journal of Political Science*, 66(2), 385–401. <https://doi.org/10.1111/ajps.12661>
- Gulzar, A. (2025). Service analysis (2024) and transgender community: Trends (2023–2025) of Tahaffuz Markaz Multan. *Journal of Law & Social Studies*, 7(3), 217–230. <https://doi.org/10.52279/jlss.07.03.217230>
- Gundhus, H. O. I., Talberg, N., & Wathne, C. T. (2022a). From discretion to standardization: Digitalization of the police organization. *International Journal of Police Science & Management*, 24(1), 27–41. <https://doi.org/10.1177/14613557211036554>
- Gundhus, H. O. I., Talberg, O. N., & Wathne, C. T. (2022b). False reporting in the Norwegian police: Analyzing counter-productive elements in performance management systems. *Criminal Justice Ethics*, 41(3), 191–214. <https://doi.org/10.1080/0731129X.2022.2146321>
- Hassan, B. (2025). Procedural and functional sources of trust in police in Pakistan. *Journal of Police and Criminal Psychology*, 40(1), 239–250. <https://doi.org/10.1007/s11896-025-09734-w>
- Heeks, R. (2002). Information systems and developing countries: Failure, success, and local improvisations. *The Information Society*, 18(2), 101–112. <https://doi.org/10.1080/01972240290075039>
- Hong, C. (2022). “Safe cities” in Pakistan: Knowledge infrastructures, urban planning, and the security state. *Antipode*, 54(5), 1476–1496. <https://doi.org/10.1111/anti.12799>
- Hood, C. (2006). Gaming in targetworld: The targets approach to managing British public services. *Public Administration Review*, 66(4), 515–521. <https://doi.org/10.1111/j.1540-6210.2006.00612.x>

- Jackson, J., Asif, M., Bradford, B., & Zakar, M. Z. (2014). Corruption and police legitimacy in Lahore, Pakistan. *British Journal of Criminology*, 54(6), 1067–1088. <https://doi.org/10.1093/bjc/azu069>
- Jackson, J., Kuha, J., Bradford, B., & Hough, M. (2026). Why do people cooperate with the police and criminal courts? A test of procedural justice theory in 30 countries. *Criminology*, 64(1), 59–87. <https://doi.org/10.1111/1745-9125.70022>
- Jauregui, B. (2014). Provisional agency in India: Jugaad and legitimation of corruption. *American Ethnologist*, 41(1), 76–91. <https://doi.org/10.1111/amet.12061>
- Khan, F. M., Alam, A., & Vesperio, M. A. (2023). Colonial legacy of the British: A narrative analysis of police service of Pakistan. *Liberal Arts and Social Sciences International Journal*, 7(1), 81–103. <https://doi.org/10.47264/idea.lassij/7.1.5>
- Lipsky, M. (1980). *Street-level bureaucracy: Dilemmas of the individual in public services*. Russell Sage Foundation.
- Malik, N., & Qureshi, T. A. (2021). A study of economic, cultural, and political causes of police corruption in Pakistan. *Policing: A Journal of Policy and Practice*, 15(2), 1446–1462. <https://doi.org/10.1093/police/paaa016>
- Masood, A., & Nisar, M. A. (2022). Repairing the state: Policy repair in the frontline bureaucracy. *Public Administration Review*, 82(2), 256–268. <https://doi.org/10.1111/puar.13414>
- Mazerolle, L., Bennett, S., Davis, J., Sargeant, E., & Manning, M. (2013). Procedural justice and police legitimacy: A systematic review of the research evidence. *Journal of Experimental Criminology*, 9(3), 245–274. <https://doi.org/10.1007/s11292-013-9175-2>
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340–363. <https://doi.org/10.1086/226550>
- Nawab, B., Ullah, S. M. A., Nyborg, I., & Maqsood, T. (2019). Community-oriented policing: Political, institutional and technical reforms in Khyber Pakhtunkhwa (KP) police. *Journal of Human Security*, 15(2), 41–53. <https://doi.org/10.12924/johs2019.15020041>
- Nyadzi, B. K., & Morris, J. (2026). E-government and public trust in developing countries: A systematic review and research agenda. *International Journal of Public Administration*, 49(3), 178–202. <https://doi.org/10.1080/01900692.2025.2597453>
- Pritchett, L., Woolcock, M., & Andrews, M. (2013). Looking like a state: Techniques of persistent failure in state capability for implementation. *Journal of Development Studies*, 49(1), 1–18. <https://doi.org/10.1080/00220388.2012.709614>
- Shahid, M., Qureshi, T. A., Khan, T. F., Saleem, M., & Parveen, S. (2021). Technological dramas and the Punjab Police: The downfall of Front Desk. *Public Policy and Administration Research*, 11(1). <https://doi.org/10.7176/PPAR/11-1-07>
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
- Soomro, S. (2026). The role of crime mapping and predictive policing in modern law enforcement: Evidence from Sindh, Pakistan (2015–2025). *Journal of Pakistan Administration*, 47(1), 248–285. <https://doi.org/10.65755/jpa-20264701-121>
- Sukhtankar, S., Kruks-Wisner, G., & Mangla, A. (2022). Policing in patriarchy: An experimental evaluation of reforms to improve police responsiveness to women in India. *Science*, 377(6602), 191–198. <https://doi.org/10.1126/science.abm7387>
- Sunshine, J., & Tyler, T. R. (2003). The role of procedural justice and legitimacy in shaping public support for policing. *Law & Society Review*, 37(3), 513–547. <https://doi.org/10.1111/1540-5893.3703002>
- Tahir, M. I., Farid, M., & Hassan, T. A. (2026). Non-registration of FIR by police under Section 154 Cr.P.C. in Pakistan and its effects. *ACADEMIA International Journal for Social Sciences*, 5(3), 421–433. <https://doi.org/10.63056/academia.5.3.2026.2211>

- Tripathi, S., Azhar, S., & Ahmad, I. (2025). "We don't have any honor because we are khwaja sira": Police violence and discrimination against the khwaja sira community in Swat, Pakistan. *Journal of Human Rights Practice*, 17(1), 58–77. <https://doi.org/10.1093/jhuman/huae034>
- Tyler, T. R. (2006). *Why people obey the law*. Princeton University Press.
- Varghese, A. (2025). The dialectics of discretion in algorithmic governance and smart policing. *Big Data & Society*, 12(4), Article 20539517251403966. <https://doi.org/10.1177/20539517251403966>
- Waseem, Z. (2021). Policing COVID-19 through procedural informality in Pakistan. *Policing and Society*, 31(5), 583–600. <https://doi.org/10.1080/10439463.2021.1887869>