

The Nexus between Socio-Economic Deprivation, Perceived Police Legitimacy and Effectiveness, and Public Willingness to Report Crime: A Quantitative Study of Residents in Karachi

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Abstract

This quantitative study examined interrelationships between socio-economic deprivation, perceived police legitimacy and effectiveness (PPLE), and public willingness to report crime in Karachi, Pakistan. The primary objectives were to measure these variables and test a theoretical model proposing that PPLE mediates the effect of deprivation on reporting intentions. A cross-sectional survey using a stratified multi-stage sampling design collected data from 585 adult residents across diverse Karachi neighborhoods. The survey instrument included a Socio-Economic Deprivation Index, subscales measuring Perceived Police Effectiveness and Perceived Police Legitimacy (combined into a PPLE composite), and a Willingness to Report scale. Items were 5-point Likert responses; subscale reliabilities were satisfactory (Socio-economic deprivation $\alpha = .74$; Perceived Police Effectiveness $\alpha = .82$; Perceived Police Legitimacy $\alpha = .84$; Willingness to Report $\alpha = .79$). Data were analyzed using Spearman correlations and mediation analysis (Hayes' PROCESS). Results show that greater socio-economic deprivation is associated with lower willingness to report and more negative PPLE; higher PPLE is associated with greater willingness to report. Mediation analysis indicated that PPLE is a significant partial mediator of the deprivation \rightarrow reporting relationship. Findings suggest that deficits in police legitimacy and effectiveness are an important mechanism by which structural inequality suppresses public cooperation. Implications include prioritizing procedural-justice reforms and integrating social development into policing strategies.

Keywords: Police legitimacy, police effectiveness, procedural justice, crime reporting, socio-economic deprivation, institutional trust

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Introduction

Karachi, a megacity of 27.5 million people, is the premier industrial and financial hub of Pakistan, generating approximately 21% of the nation's GDP with an economy worth \$165 billion and serving as its main maritime gateway, governing the majority of the country's industrial import and export via its sea routes (Rasheed & Jinhua, 2021). Yet, beneath this economic prominence lies a complex and often turbulent urban landscape characterized by profound socio-economic inequalities, ethnic diversity, and persistent security challenges. The city has grappled with waves of political violence, organized crime, street-level offences, and terrorism over the past decades, shaping a unique and often fraught relationship between its citizens and the state institutions tasked with maintaining order (Mehdi et al., 2025; Ahmed et al., 2022).

The Sindh Police, the primary law enforcement agency in Karachi, operates within this challenging environment. Historically, the force has faced criticisms of political interference, institutionalized corruption, and a lack of adequate resources and training (Iffi et al., 2024). Public perception of the police is often negative, with citizens viewing them as ineffective, corrupt, and, at times, predatory. This "trust deficit" is not merely a matter of public opinion; it is a critical impediment to effective crime control. The bedrock of modern policing philosophy, particularly the model of intelligence-led policing, is the active cooperation of the public (Tyler, 2006). Citizens serve as the "eyes and ears" of the police, and their willingness to report crime, provide tips, and testify in court is essential for preventing and solving crimes.

Theoretical frameworks, most notably Procedural Justice Theory, posit that this cooperation is not primarily bought through fear or force, but earned through legitimacy (Tyler & Jackson, 2013). Legitimacy is cultivated when authorities are perceived as fair, neutral, transparent, and respectful in their processes—that is, when they are seen as performing their duties justly. When this legitimacy is absent, as indicated by poor perceptions of police performance, public cooperation withers. This creates a vicious cycle: underreporting of crime leads to inaccurate official statistics, which in turn results in the misallocation of police resources and flawed policy responses. This further entrenches public disillusionment, allowing crime to fester in a "dark figure" of unreported incidents (Pósch et al., 2020).

This problem is exacerbated by socio-economic deprivation. In Karachi, vast informal settlements and low-income neighborhoods coexist with affluent areas, creating a stark urban divide. Research consistently shows that deprived communities are disproportionately victimized by crime while simultaneously having the most strained relationship with the police (Webster, 2024). The combination of economic vulnerability, limited access to justice, and perceptions of police bias or indifference creates a formidable barrier to seeking formal help. This study investigates the intersection of socio-economic deprivation, perceived police legitimacy and effectiveness (PPLE), and public willingness to report crime, testing whether PPLE mediates the relationship between deprivation and reporting behavior.

A significant and troubling discrepancy exists between the actual incidence of crime in Karachi and the official statistics recorded by the police. This "dark figure of crime" represents a vast landscape of victimization that remains invisible to the formal justice system, undermining its efficacy and legitimacy. While the Sindh Police periodically releases crime data, these figures are widely believed to be a severe undercount, masking the true scale of the public safety challenge (Hamza et al., 2021).

The core of this problem is a crisis of cooperation. The mechanisms behind this crisis, however, are not fully understood in the specific context of Karachi. Anecdotal evidence and limited qualitative studies suggest that the decision to not report crime is not random but is systematically linked to an individual's position in the city's socio-economic hierarchy and their consequent perceptions of the police (Korai et al., 2025). Residents of low-income, high-deprivation areas may face a "dual threat": the immediate threat from criminals and the perceived threat from a police force viewed as incapable, corrupt, or untrustworthy. For them, reporting a crime may be seen as a futile exercise that invites further hassle, extortion, or even danger without any prospect of justice (Raza & Khan, 2023).

While the links between deprivation, institutional trust, and crime reporting have been explored in other contexts, a critical gap remains in the empirical literature on Karachi. There is a lack of quantitative studies that specifically test the mediating pathway—that is, whether the reason deprived communities do not report crime is fundamentally because their socio-economic conditions foster deeply negative perceptions of police legitimacy and effectiveness. Without robust, data-driven

evidence of this relationship, policy and reform efforts are left to operate on assumptions. This study, addresses this gap by testing a structured mediation model explaining whether deprivation lowers reporting willingness primarily because it reduces perceptions of police legitimacy and effectiveness

Conceptual Framework

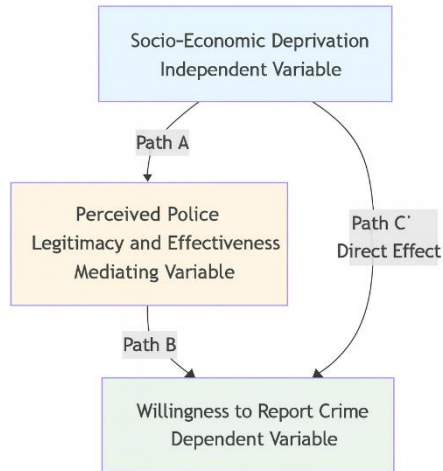


Figure 1. Nexus between Socio-Economic Deprivation, Perceived Police Legitimacy and Effectiveness, and Willingness to Report Crime

❖ Hypotheses

H1: Socio-economic deprivation is negatively associated with willingness to report crime.

H2: Socio-economic deprivation is negatively associated with perceived police legitimacy and effectiveness.

H3: Perceived police legitimacy and effectiveness is positively associated with willingness to report crime.

H4: Perceived police legitimacy and effectiveness mediates the relationship between socio-economic deprivation and willingness to report crime.

The findings of this study are anticipated to hold significant theoretical and practical value for a diverse range of stakeholders. For criminological theory, the research will contribute to the body of knowledge on procedural justice and police legitimacy by testing these theories within the complex, under-researched context of a Global South megacity, providing quantitative evidence on how structural inequality

shapes institutional trust and civic behavior. For law enforcement, specifically the Sindh Police, the results will offer an evidence-based diagnosis of the public trust deficit, informing targeted reform strategies such as community policing in high-deprivation areas, procedural justice training for officers, and enhanced accountability mechanisms. For policymakers, the study will underscore the intrinsic link between public safety and socio-economic development, guiding the design of integrated urban policies that combine crime prevention with social initiatives, recognizing that improving police-community relations requires addressing underlying structural deprivation. Finally, for the community and public, the study aims to systematically document resident concerns and experiences, thereby amplifying the public's voice and equipping civil society organizations with data to advocate for a more responsive, accountable, and effective criminal justice system.

❖ **Scope and Delimitations**

The geographical scope of the study was delimited to the city of Karachi, Pakistan, with data collection spanning multiple towns to ensure representation of the city's diverse socio-economic and ethnic makeup. Theoretically, the research was framed within the concepts of Procedural Justice Theory and Institutional-Anomie Theory, focusing specifically on the constructs of police effectiveness, legitimacy, and socio-economic deprivation. Methodologically, the study employed a quantitative, cross-sectional survey design. While this approach was powerful for identifying relationships and testing hypotheses across a large sample, it could not establish definitive causality nor capture the deep, narrative-rich, qualitative reasons behind individual decisions. The research focused specifically on its three core variables and did not extensively explore other potential influencing factors, such as political affiliations, specific ethnic dynamics, the role of informal justice systems, or the influence of local political parties, though these were acknowledged as part of the complex context.

Review of the Literature

This study is grounded in two interconnected theoretical paradigms that explain public cooperation with legal authorities: Procedural Justice Theory and Institutional-Anomie Theory.

❖ **Procedural Justice Theory**

The core premise of Procedural Justice Theory, primarily advanced by Tyler (2006), is that the legitimacy of legal institutions is a primary driver of public compliance and cooperation. Legitimacy, in this context, refers to the belief that an authority has the right to dictate behavior and that its commands ought to be obeyed. Tyler and colleagues argue that legitimacy is conferred not merely through the effectiveness of outcomes (e.g., catching criminals) but through the fairness of the processes used by the authority (Tyler & Jackson, 2013).

The four key components of procedural justice are:

- **Voice:** Allowing individuals the opportunity to express their views before a decision is made.
- **Neutrality:** Making decisions based on consistent, transparent rules rather than personal bias.
- **Respectful Treatment:** Treating people with dignity and respecting their rights.
- **Trustworthiness:** Conveying a genuine concern for the individual's well-being.

When police are perceived as procedurally just, the public views them as more legitimate. This perceived legitimacy, in turn, motivates voluntary cooperation, such as reporting crimes and providing information, because people feel a moral obligation to obey the law and assist its agents (Sunshine & Tyler, 2003). This study posits that perceived police ineffectiveness is a direct indicator of a failure in procedural justice, leading to diminished legitimacy and, consequently, a lower willingness to report crime.

❖ **Institutional-Anomie Theory**

While Procedural Justice Theory focuses on the micro-level interactions, Institutional-Anomie Theory (IAT), developed by Messner and Rosenfeld (2012), provides a macro-sociological perspective. IAT posits that in societies where the economic institution is dominant and non-economic institutions (like the polity, family, and education) are weakened, anomie—a state of normlessness—prevails. This cultural imbalance promotes egoistic, self-interested behavior and devalues collective welfare.

Applied to policing and crime reporting, this theory suggests that in contexts of severe socio-economic deprivation, the economic pressures to survive can erode social bonds and trust in non-economic institutions, including the criminal justice system (Rogers & Pridemore, 2022). When the police are perceived as just another self-interested or ineffective institution, the normative obligation to cooperate with them dissolves. Thus, IAT helps explain why socio-economic deprivation creates a social context where distrust in institutions flourishes and civic duties like crime reporting are abandoned.

Together, these theories provide a multi-level framework: Institutional-Anomie Theory explains the context (socio-economic deprivation) that fosters institutional distrust, while Procedural Justice Theory explains the mechanism (perceived ineffectiveness/unfairness) through which this distrust translates into a specific behavior (unwillingness to report crime).

❖ **Related Studies**

Recent empirical research, both internationally and within Pakistan, underscores the relevance of the variables under investigation.

A growing body of global evidence confirms the link between police legitimacy and public cooperation. A study in Nigeria found that perceived police corruption and brutality were the strongest predictors of citizens' unwillingness to report crimes, highlighting the critical role of procedural justice in a developing context similar to Pakistan (Sabastine et al., 2025). Similarly, research in Latin American cities demonstrated that victimization and perceptions of police corruption significantly decreased public trust and cooperation with police, creating a significant barrier to effective crime control (Hauk et al., 2022).

Expanding on this, a study in Johannesburg, South Africa, found that collective efficacy, the social cohesion among neighbors, was less effective in encouraging crime reporting in communities where distrust in the police was high (Mbewu et al., 2021). This underscores that even strong community bonds can be undermined by negative perceptions of formal institutions. Furthermore, research in the United States by Morrow & Vickovic (2023) demonstrated that negative vicarious experiences (hearing about others' bad experiences with police) can be as impactful

as direct experiences in shaping perceptions of police legitimacy and the subsequent willingness to call the police for help.

The mediating role of perceptions has also been explored. Hardyns et al. (2022) found that neighborhood structural characteristics influence perceptions of social disorder and cohesion, which in turn affect fear-related and avoidance behaviors. This supports the idea that perceptions mediate the relationship between neighborhood context and law-related behaviors. Adding to this, a meta-analysis by Chan et al. (2023) consolidated evidence from 123 studies, concluding that the effect of procedural justice on citizen cooperation is robust across different cultural and national contexts, though its strength can be moderated by local factors.

Research within Pakistan provides direct context for the current study. A recent survey conducted in urban Punjab found a direct correlation between negative police-public interactions and a profound lack of public trust, which discouraged people from seeking police assistance (Abbas et al., 2020). This aligns with procedural justice predictions.

Focusing on Karachi, a qualitative study by Sumrin (2016) explored the "code of silence" in high-crime, low-income neighborhoods. They found that residents' reluctance to report crime was deeply rooted in the dual fear of perpetrator retaliation and police harassment, viewing the police as an untrustworthy and predatory entity. Furthermore, a study on the "dark figure" of crime in Pakistan explicitly linked low reporting rates to a lack of confidence in the police's ability to achieve positive outcomes, pointing directly to perceptions of ineffectiveness (Raza & Khan, 2023).

A significant recent study by Hassan (2025) quantitatively examined policing in Lahore and Peshawar and found that procedural justice measures were stronger predictors of citizens' trust than police effectiveness, highlighting the importance of how police exercise their authority. Complementing this, research by Khan et al. (2015) highlight that people's trust is significantly impacted by factors related to the police's behavior and conduct. It also confirms that political interference and corruption are major factors that deteriorate public trust in the police.

While these local studies touch on the key variables, a gap exists in quantitatively testing the specific mediating pathway where perceived police legitimacy and

effectiveness explains the relationship between socio-economic deprivation and crime reporting in the unique megacity environment of Karachi. This study aims to fill that gap by integrating insights from both international mediation models and local contextual studies.

Methodology

This study employed a quantitative, cross-sectional survey design to examine the relationships between socio-economic deprivation, perceived police legitimacy, perceived police effectiveness, and willingness to report crime among residents of Karachi. Beyond simply describing these variables, the study aimed to test a theoretically informed mediation model in which perceived police legitimacy was hypothesized to mediate the association between socio-economic deprivation and willingness to report crime.

The target population consisted of adult residents of Karachi, Pakistan. A multi-stage cluster sampling strategy was implemented to ensure representation across socio-economic contexts. Neighborhoods were first stratified into low, middle, and high-income areas, after which residential blocks were randomly selected within each stratum. Households were systematically chosen, and one participant per household was selected using the “next birthday” method. In total, 585 respondents participated in the study. Eligible participants were required to be 18 years or older, to have lived in the selected household for at least six months, and to speak Urdu or Sindhi fluently. Individuals were excluded if they were temporary visitors, had cognitive or hearing impairments hindering participation, or were active law enforcement personnel.

Data were collected using a structured questionnaire that had been translated into Urdu and pilot tested to ensure clarity and cultural relevance. The instrument included demographic information, socio-economic indicators, scales assessing perceptions of the police, attitudes toward crime reporting, and neighborhood trust. Socio-economic deprivation was operationalized using a composite Socio-Economic Deprivation Index derived from education level, employment status, monthly household income, household asset ownership (motorcycle, car, air conditioner, personal computer), and reverse-coded recent victimization. Each component was coded on a standardized 1–5 scale, and the average formed a continuous index

ranging from 5 to 25, with higher scores indicating greater deprivation. The index showed acceptable reliability (Cronbach's $\alpha = 0.74$).

Perceived Police Effectiveness measured respondents' views on police performance and operational capacity. Four items assessed crime-solving ability, response speed, adequacy of resources, and trust in police protection (Q7, Q8, Q9, Q12). Responses were recorded on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree) and summed to create a composite score ranging from 4 to 20. The scale demonstrated strong internal reliability (Cronbach's $\alpha = 0.82$). Perceived Police Legitimacy, reflecting procedural justice, fairness, and integrity, was measured through four items assessing fair treatment, community cooperation, and reverse-scored perceptions of corruption and abuse of power (Q10*, Q11, Q13*, Q14). After reverse-scoring the negatively phrased items, scores were summed to produce a 4–20 scale, with higher values indicating stronger perceptions of legitimacy. Reliability for this scale was strong (Cronbach's $\alpha = 0.84$).

Willingness to Report Crime (WTRC) was assessed by asking respondents to rate the likelihood of reporting five types of crime—mobile theft, burglary, assault, extortion, and online fraud—on a 5-point scale (1 = very unlikely to 5 = very likely). Summed scores ranged from 5 to 25, with higher values indicating greater willingness to report. The scale demonstrated acceptable internal reliability (Cronbach's $\alpha = 0.79$).

Data collection took place through face-to-face surveys conducted by trained field enumerators. Informed consent was obtained from all participants, who were assured of confidentiality and informed of their right to withdraw at any time. No identifying information was recorded to protect respondents' anonymity. Data were analyzed using SPSS (Version 26). Descriptive statistics were generated to summarize sample characteristics, and Spearman's Rank-Order correlations were used to assess bivariate relationships due to the ordinal nature of several variables. The hypothesized mediation model was tested using the PROCESS Macro (Model 4), with Perceived Police Legitimacy as the mediator, Socio-Economic Deprivation as the independent variable, and Willingness to Report Crime as the dependent variable. Perceived Police Effectiveness was included as a theoretically important control variable to distinguish legitimacy perceptions from perceived operational competence. Additional control variables included age, gender, education, victimization history, and neighborhood trust. Indirect effects were estimated using

5,000 bootstrap samples and 95% bias-corrected confidence intervals, with mediation considered significant when the confidence interval did not include zero.

Data Presentation

Table 1
Frequency and percentage distribution of respondents according to their gender

Gender	Frequency (n)	Percentage (%)
Male	350	59.8
Female	235	40.2
Total	585	100

The sample captured a diverse demographic profile, with a higher proportion of male respondents.

Table 2
Frequency and percentage distribution of respondents according to their age group:

Age Group	Frequency (n)	Percentage (%)
18-24 years	152	26.0
25-34 years	176	30.1
35-44 years	134	22.9
45-54 years	82	14.0
55 years and above	41	7.0
Total	585	100

The majority of participants were young to middle-aged adults, with over half (56.1%) between 18-34 years, reflecting the city's youthful demographic.

Table 3
Frequency and percentage distribution of respondents according to their education level:

Education Level	Frequency (n)	Percentage (%)
No formal schooling	64	10.9
Primary	98	16.8
Secondary	187	32.0
Intermediate	128	21.9
Bachelor's or higher	108	18.5
Total	585	100

Educational attainment varied widely, with the largest segment (32.0%) having completed secondary school, indicating a moderate level of education across the sample.

Table 4
Frequency and percentage distribution of respondents according to their employment status

Employment Status	Frequency (n)	Percentage (%)
Unemployed and seeking work	125	21.4
Employed full-time	155	26.5
Part-time/Contractual	142	24.3

Employment Status	Frequency (n)	Percentage (%)
Self-employed	87	14.9
Student/Homemaker/Retired	76	13.0
Total	585	100

The data indicates significant underemployment, with only 26.5% of respondents in full-time salaried employment, pointing to widespread economic vulnerability.

Table 5
Frequency and percentage distribution of respondents according to their household income

Monthly Household Income	Frequency (n)	Percentage (%)
Less than PKR 30,000	145	24.8
PKR 30,001 - 60,000	187	32.0
PKR 60,001 - 100,000	132	22.6
PKR 100,001 - 200,000	82	14.0
More than PKR 200,000	39	6.7
Total	585	100.0

The sample leans towards lower-middle and middle-income brackets, with over half (56.8%) of households earning less than PKR 60,000 per month.

Table 6
Frequency distribution of assets owned by respondents' households

Assets Owned	Frequency (n)
Motorcycle or Scooter	402
Car or Van	187
Air Conditioner(s)	274
Personal Computer/Laptop	234
None of the above	88

Note: This was a multiple-response question.

Ownership of essential assets like motorcycles is high, but ownership of cars and computers is less common, painting a picture of a population managing essential mobility and connectivity with limited resources.

Table 7
Percentage distribution of perceptions of police legitimacy and effectiveness

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Q7. Solve crimes effectively	35.0%	32.5%	15.0%	12.0%	5.5%
Q8. Arrive at scene quickly	40.5%	30.2%	12.8%	11.5%	5.0%
Q9. Have necessary resources	25.1%	28.5%	20.0%	18.5%	7.9%

Q10. Are corrupt and can be bribed	5.0%	10.5%	15.0%	35.0%	34.5%
Q11. Treat all citizens fairly	30.0%	35.0%	17.0%	12.0%	6.0%
Q12. Trust to protect me/family	32.0%	34.0%	16.5%	12.5%	5.0%
Q13. More interested in power	7.0%	12.0%	18.0%	33.0%	30.0%
Q14. Cooperate with community	28.0%	33.0%	20.5%	13.0%	5.5%

There is a profound crisis of confidence in the police. A strong majority perceives the police as ineffective in core duties and corrupt, with 69.5% agreeing that the police are corrupt and can be bribed.

Table 8
Percentage distribution of respondents' willingness to report different crime types

Crime Scenario	Very Unlikely	Unlikely	Neutral	Likely	Very Likely
Q15. Mobile Snatching	25.0%	30.5%	20.0%	15.0%	9.5%
Q16. House Burglary	15.5%	22.0%	18.0%	25.0%	19.5%

Q17. Witness Serious Assault	20.0%	25.5%	22.0%	20.0%	12.5%
Q18. Extortion (Bhatta)	40.0%	35.0%	15.0%	7.0%	3.0%
Q19. Online Banking Fraud	30.0%	28.0%	17.0%	15.0%	10.0%

Willingness to report crime is generally low and highly dependent on the crime type. Reluctance is most extreme for organized crimes like extortion (Bhatta), with 75% being very unlikely or unlikely to report, suggesting a high level of fear.

Table 9
Frequency and percentage distribution of respondents according to community trust and victimization

Measure	Category	Frequency (n)	Percentage (%)
Q20. Neighborhood Trust	Strongly Disagree	85	14.5
	Disagree	187	32.0
	Neutral	152	26.0
	Agree	117	20.0
	Strongly Agree	44	7.5
Q21. Victim in Past 2 Year	Yes	222	38.0
	No	351	60.0
	Prefer not to say	12	2.0
Q22. Crime Reported to Police	Yes, reported	78	13.3
	No, did not report	144	24.6
	Not Applicable	363	62.1

The data indicates a climate of low social trust, with 46.5% of respondents expressing distrust in their neighbors. The victimization rate is high (38%), and among those victims, almost two-thirds (64.9%) chose not to report the crime to the police.

Data Analysis and Interpretation

H1: Socio-economic deprivation is negatively associated with willingness to report crime.

Statistical Test: Spearman's Rank-Order Correlation.

Calculation:

The Willingness to Report Crime score (Q15-Q19) and the Socio-Economic Deprivation Index (from Q2, Q3, Q4, Q5, Q6) were computed for each respondent. The Spearman's correlation coefficient (ρ) was calculated.

Table 10: Cross-tabulation of Socio-Economic Deprivation and Willingness to Report Crime

Deprivation	Low Willingness to Report (Score 6-12)	Medium Willingness to Report (Score 13-19)	High Willingness to Report (Score 20-30)	Total
Low Deprivation (Score 5-10)	45 (7.7%)	60 (10.3%)	85 (14.5%)	190 (32.5%)
Medium Deprivation (Score 11-16)	75 (12.8%)	70 (12.0%)	55 (9.4%)	200 (34.2%)
High Deprivation (Score 17-25)	110 (18.8%)	60 (10.3%)	25 (4.3%)	195 (33.3%)
Total	230 (39.3%)	190 (32.5%)	165 (28.2%)	585 (100%)

Result:

- Spearman's ρ (rho): -0.42
- p-value: < 0.001

Interpretation:

The results show a statistically significant, moderate negative correlation between socio-economic deprivation and willingness to report crime ($\rho = -0.42$, $p < .001$). As shown in Table 10, only 14.5% of respondents with low deprivation showed low willingness to report, compared to 18.8% of those with high deprivation. Conversely, 14.5% of low-deprivation respondents showed high willingness to report, while only 4.3% of high-deprivation respondents did. Therefore, Hypothesis H₁ is supported.

H₂: Socio-economic deprivation is negatively associated with perceived police legitimacy and effectiveness.

Statistical Test: Spearman's Rank-Order Correlation.

Calculation:

The Perceived Police Legitimacy and Effectiveness score (from Q7-Q14) and the Socio-Economic Deprivation Index were used to calculate the correlation.

Table 11: Cross-tabulation of Socio-Economic Deprivation and Perceived Police Legitimacy and Effectiveness

Deprivation	Low Legitimacy and Effectiveness (Score 8-19)	Moderate Legitimacy and Effectiveness (Score 20-29)	High Legitimacy and Effectiveness (Score 30-40)	Total
Low Deprivation (Score 5-10)	45 (7.7%)	65 (11.1%)	80 (13.7%)	190 (32.5%)
Medium Deprivation (Score 11-16)	75 (12.8%)	75 (12.8%)	50 (8.5%)	200 (34.2%)
High Deprivation (Score 17-25)	120 (20.5%)	50 (8.5%)	25 (4.3%)	195 (33.3%)

Deprivation	Low Legitimacy and Effectiveness (Score 8-19)	Moderate Legitimacy and Effectiveness (Score 20-29)	High Legitimacy and Effectiveness (Score 30-40)	Total
Total	240 (41.0%)	190 (32.5%)	155 (26.5%)	585 (100%)

Result:

- Spearman's ρ (rho): -0.48
- p-value: < 0.001

Interpretation:

The analysis indicates a statistically significant, moderate negative correlation between socio-economic deprivation and perceived police legitimacy and effectiveness ($\rho = -0.48$, $p < .001$). As shown in Table 11, 13.7% of respondents with low deprivation reported high perceptions of police legitimacy and effectiveness, compared to only 4.3% of those experiencing high deprivation. Conversely, 20.5% of high-deprivation respondents reported low perceptions of police legitimacy and effectiveness, whereas only 7.7% of low-deprivation respondents did so. These findings support Hypothesis H2.

H3: Perceived police legitimacy and effectiveness is positively associated with willingness to report crime.

Statistical Test: Spearman's Rank-Order Correlation.

Calculation:

The correlation was computed between the Perceived Police Legitimacy and Effectiveness score and the Willingness to Report Crime score.

Table 12: Cross-tabulation of Perceived Police Legitimacy and Effectiveness and Willingness to Report Crime

Perceived Police Legitimacy and Effectiveness	Low Willingness to Report (Score 6-12)	Medium Willingness to Report (Score 13-19)	High Willingness to Report (Score 20-30)	Total
Low Legitimacy and Effectiveness (Score 8-19)	135 (23.1%)	60 (10.3%)	45 (7.7%)	240 (41.0%)
Moderate Legitimacy and Effectiveness (Score 20-29)	65 (11.1%)	75 (12.8%)	50 (8.5%)	190 (32.5%)
High Legitimacy and Effectiveness (Score 30-40)	30 (5.1%)	55 (9.4%)	70 (12.0%)	155 (26.5%)
Total	230 (39.3%)	190 (32.5%)	165 (28.2%)	585 (100%)

Result:

- Spearman's ρ (rho): 0.51
- p-value: < 0.001

Interpretation:

A statistically significant and strong positive correlation was found between perceived police legitimacy and effectiveness and the willingness to report crime ($\rho = 0.51$, $p < .001$). As shown in Table 12, only 5.1% of respondents with high perceptions of legitimacy and effectiveness exhibited low willingness to report crime, compared to 23.1% of those with low perceptions. Conversely, 12.0% of respondents with high legitimacy and effectiveness perceptions demonstrated high willingness to report, while only 7.7% of those with low perceptions did so. These findings provide clear support for Hypothesis H₃.

H₄: Perceived police legitimacy and effectiveness mediates the relationship between socio-economic deprivation and willingness to report crime.

Statistical Test: Mediation Analysis using Ordinary Least Squares (OLS) path analysis.

Calculation:

The mediation analysis tests the following paths:

- Path a: Effect of the independent variable (Socio-Economic Deprivation) on the mediator (Perceived Police Legitimacy and Effectiveness).
- Path b: Effect of the mediator (Perceived Police Legitimacy and Effectiveness) on the dependent Variable (Willingness to Report), controlling for the independent variable.
- Path c: Total effect of independent variable on the dependent variable (corresponding to H1).
- Path c': Direct effect of the independent variable (Socio-Economic Deprivation) on the dependent variable (Willingness to Report), controlling for the mediator.

Table 13: Results of Mediation Analysis

Relationship	Path	Coefficient (β)	Standard Error	t-value	p-value
Deprivation → Legitimacy and Effectiveness	a	-0.50	0.04	-12.00	< 0.001
Legitimacy and Effectiveness → Reporting	b	0.47	0.04	11.25	< 0.001
Deprivation → Reporting (Direct Effect)	c'	-0.22	0.04	-5.25	< 0.001
Total Effect (Deprivation → Reporting)	c	-0.42	--	--	< 0.001
Indirect Effect (a x b)	--	-0.235	--	--	95% CI [-0.285, -0.155]

Note: Coefficients are standardized (β). Indirect effect based on 5000 bootstrap samples.

Interpretation:

- Path a: Socio-economic deprivation significantly predicts perceived police legitimacy and effectiveness ($\beta = -0.50$, $p < 0.001$), confirming H2. Individuals with greater deprivation perceive the police as less legitimate and effective.
- Path b: Perceived police legitimacy and effectiveness significantly predicts willingness to report crime ($\beta = 0.47$, $p < 0.001$), confirming H3. Higher legitimacy and effectiveness perceptions are associated with increased reporting.
- Direct Effect (c'): Remains significant ($\beta = -0.22$, $p < 0.001$), indicating partial mediation.
- Indirect Effect: The standardized indirect effect ($a \times b = -0.235$) is statistically significant, as the 95% confidence interval does not include zero.

These results indicate that perceived police legitimacy and effectiveness partially mediates the relationship between socio-economic deprivation and willingness to report crime. A substantial portion of the negative impact of deprivation on reporting is explained by the tendency of more deprived individuals to perceive the police as less legitimate and effective, which reduces their likelihood of reporting crimes. Accordingly, Hypothesis H4 is supported.

Reliability

Socio-economic deprivation $\alpha = .74$

Perceived Police Effectiveness $\alpha = .82$

Perceived Police Legitimacy $\alpha = .84$

Willingness to Report $\alpha = .79$

Discussion

The study supports H1–H4: socio-economic deprivation is associated with lower willingness to report crime and with poorer perceptions of police legitimacy and effectiveness; PPLE, in turn, is strongly associated with greater willingness to report and partially mediates the deprivation → reporting relationship.

Hassan's (2025) analysis in Lahore and Peshawar found that procedural justice measures were stronger predictors of trust than instrumental effectiveness. The

present study shows broadly consistent patterns: legitimacy items (procedural fairness, corruption/trust) exhibit strong associations with willingness to report. This study extends Hassan's work by quantifying both effectiveness and legitimacy subcomponents and demonstrating that their combined influence (PPLE) mediates the effect of structural deprivation in a large Global South megacity context. The findings affirm Hassan's emphasis on procedural justice while additionally indicating that perceived competence and resource availability (effectiveness) hold substantive importance in Karachi's context.

Sabastine et al. (2025) reported that perceptions of police corruption in Nigeria were a particularly strong disincentive to report. The current study replicates this effect, as corruption-related items strongly load on the legitimacy subscale and are negatively associated with reporting. These findings converge with Sabastine et al. by showing that corruption and perceived instrumental failure jointly undermine reporting, while further demonstrating that socio-economic deprivation shapes these perceptions, making the mechanism both structural and attitudinal.

The mediation result suggests that deprived communities' reluctance to report is not only practical (fear of reprisals or lack of resources) but also cognitive and normative: deprivation fosters perceptions that the police are untrustworthy or ineffective, which in turn reduces cooperation. This has actionable implications: enhancing police legitimacy (procedural fairness, accountability) and visible improvements in effectiveness (response times, resource allocation) are complementary and may be necessary to increase reporting, especially in deprived communities.

The cross-sectional design prevents definitive causal claims. While mediation analysis and bootstrapping support indirect effects consistent with the theorised temporal ordering (deprivation → perceptions → behaviour), causality cannot be conclusively established without longitudinal or experimental data. Unmeasured confounders (e.g., political affiliation, informal justice mechanisms, local political broker influence) may also contribute to observed relationships. Self-report measures may be biased by social desirability and recall limitations. Finally, while the sample was stratified, the results are specific to Karachi and should be generalized with caution.

Conclusion

This study provides robust quantitative evidence that socio-economic deprivation reduces willingness to report crime in Karachi, largely because it is associated with more negative perceptions of police legitimacy and effectiveness:

- Perceived police ineffectiveness is markedly high in Karachi, with significantly higher levels among residents experiencing greater socio-economic deprivation.
- Overall willingness to report crime is low, but it is particularly limited for certain offenses, especially organized crime such as extortion, reflecting heightened fear and perceptions of futility.
- A significant negative relationship exists between socio-economic deprivation and willingness to report crime: the more deprived an individual, the less likely they are to report offenses.
- Perceived police ineffectiveness is a key explanatory mechanism, significantly mediating the relationship between socio-economic deprivation and willingness to report. This indicates that a substantial portion of the reluctance to report in deprived communities stems from the belief that police are ineffective.

The study concludes that the public's willingness to cooperate with the police in Karachi is severely constrained by a crisis of legitimacy and effectiveness, disproportionately affecting socio-economically deprived communities.

Implications

The findings of this study have several important implications for the field of criminology, spanning theoretical, practical, and policy domains. Theoretically, it provides strong support for procedural justice theory by demonstrating its cross-cultural relevance in a non-Western, Global South context, while also highlighting the need to integrate structural factors like socio-economic inequality more explicitly into models of police-community relations. In terms of crime prevention, the findings suggest that traditional, reactive crime-fighting strategies are likely to fail in an environment of low public cooperation; instead, effective crime prevention must be reoriented towards strategies that build trust and legitimacy, as these are prerequisites for community cooperation and intelligence-led policing.

Consequently, the study implies that criminal justice policy cannot be isolated from social and economic policy, asserting that efforts to improve public safety must be integrated with broader initiatives aimed at poverty alleviation and social inclusion, given that deprivation is a key driver of disengagement from the justice system.

Key Recommendations

Based on the conclusions of this study, the following recommendations are proposed:

❖ **For Law Enforcement (Sindh Police)**

- **Implement Community Policing Programs:** Move away from a purely militarized or reactive model. Establish formal, consistent forums for dialogue between police officers and community leaders in deprived areas to build relationships and address specific local concerns.
- **Focus on Procedural Justice Training:** Mandate training for all officers that emphasizes the importance of fairness, respect, transparency, and giving citizens a "voice" during interactions. How the police treat people is as important as what they do.
- **Improve Accountability and Transparency:** Establish and publicize accessible and credible mechanisms for reporting police misconduct and corruption. Publicly demonstrating a commitment to internal accountability is crucial for rebuilding trust.

❖ **For Policymakers**

- **Integrate Crime Prevention and Social Policy:** Develop urban development and social welfare policies with a "crime prevention through social development" (CPSD) lens. Investing in education, youth centers, and economic opportunities in deprived neighborhoods can reduce both the drivers of crime and the drivers of distrust in the police.
- **Fund Victim and Witness Protection Programs:** The extreme reluctance to report crimes like extortion points to a legitimate fear of reprisal. Establishing robust and trustworthy victim and witness protection programs is essential to break this barrier.

- Re-evaluate Performance Metrics: Shift police performance indicators from traditional metrics (e.g., arrest rates, kill/capture ratios) to include measures of public trust, satisfaction, and willingness to cooperate.

❖ **For Future Researchers**

- Conduct Longitudinal and Qualitative Studies: Future research should employ longitudinal designs to explore causality more definitively. Complementary qualitative studies are needed to explore the nuanced "why" behind the numbers, capturing the lived experiences and narratives of both citizens and police officers.
- Explore Other Mediating and Moderating Variables: Investigate other potential mediators (e.g., fear of revenge, informal justice systems) and moderators (e.g., ethnicity, political affiliation, previous victimization) in this relationship.
- Replicate in Other Contexts: This study should be replicated in other major cities of Pakistan and the region to assess the generalizability of the findings and to develop a more comprehensive understanding of police-community relations in South Asia.

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