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AI-Based SMART Policing Initiative and Citizen Engagement: An Analysis of Public Perception of Technology-Driven Law Enforcement in Jammu & Kashmir

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ABSTRACT

The primary focus of this study is to explore how citizens of Jammu and Kashmir feel about the use of various AI-powered policing technologies, such as *AI-based facial Recognition Systems*, the *Intelligent Traffic Management System* (ITMS), and the *JKecop* mobile application. These technologies combine Artificial Intelligence (AI) and SMART policing to improve and develop law enforcement by *preventing crime, enhancing public safety, and supporting citizen engagement*.

This research uses a mixed-method approach combining quantitative and qualitative methods to understand *public perception*. A well-structured questionnaire with fifty questions is used to collect data from 200 respondents combined with 50 in-depth interviews to gain a deeper understanding of AI-powered SMART policing and citizen engagement. Theoretical framework of the *Technology Acceptance Model* (TAM) is used to explore the factors of AI-driven law enforcement technologies- *usefulness, comfortability, security, and trust* - which influences the citizen to accept AI policing in J&K. Quantitative analytical framework includes descriptive statistics, correlation analysis, and multiple regression, while interviews are examined through thematic analysis based on common patterns and concerns.

The findings of this study show that AI-powered policing has improved citizen safety, crime detection, and traffic control by ensuring privacy, ethical surveillance, and digital literacy among the citizens of Jammu & Kashmir. The study suggests that clear AI policies, proper public awareness programs, and ethical guidelines can help citizens build more trust, ensure efficient implementation with transparency, and result in a citizen-friendly approach. The major contribution of this research is that it provides empirical data on public perception, which can be used by government and policy-makers in improving AI policing in Jammu and Kashmir.



Keywords: AI Policing, SMART Law Enforcement, Citizen-Centric Policing, JKecop, ITMS, Technology Acceptance Model (TAM), Digital Trust, and Police Public relationship.



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INTRODUCTION

The use of Artificial Intelligence (AI) within SMART policing has become an important technological advancement at a global level. Governments and police departments are using AI-driven technologies for crime prevention and public safety, which in turn builds citizen engagement (Joh, 2021). There are plenty of citizen-based AI-driven policing technologies, such as AI-Based Facial Recognition Systems, Intelligent Traffic Management Systems (ITMS), Interactive Chatbot Services (DigiSahayak, NICCI Digi-Dost, JIA, Police Mitra, and Tele-MANS), JKecop, CitizenCop, RAKSHA App, E-Beat Book App etc. in India (Chaurpagar, 2022). These AI-policing technological advancements have definitely assisted the police in identifying criminals and preventing crimes, which has increased police efficiency (Brayne, 2020). The inclusion and integration of these AI-policing SMART technologies have not only helped law enforcement agencies to respond quickly to crime or incidents, but they have also assisted in analyzing crime patterns by ensuring a *safer environment* for citizens.

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India has introduced AI-powered policing in several states to address the growing security challenges. In the account of Jammu and Kashmir, which holds a unique security situation due to its social and geopolitical complexities, has started adopting the AI-driven policing initiatives. This study focuses on three important AI-policing initiatives implemented by Jammu and Kashmir Police, i.e., AI-Powered Facial Recognition Systems, the JKecop mobile application, and Intelligent Traffic Management System (ITMS), as these have enhanced the law enforcement efficiency compared to others ([Indian Express, 2024](#)). The aim of these SMART policing initiatives is to make police services more accessible, transparent, and responsive to the needs of Jammu and Kashmir citizens.

Among the three chosen AI-Policing technologies, the AI-Powered Facial Recognition Systems have significant importance, as the Jammu and Kashmir police have installed AI facial recognition cameras at various key locations, such as the Navyug Tunnel in Qazigund and in various regions of Ramban district ([ANI News, 2024](#)). These AI cameras efficiently track individuals and monitor all security threats. The JKecop mobile app provides citizens with an AI-powered platform to report crimes, file complaints, and seek immediate assistance within a click, reducing the need to physically visit police stations ([Greater Kashmir, 2022](#)). The ITMS significantly helps in managing traffic congestion, reducing accidents, and improving road safety among the citizens by its automated fine collection systems and AI-based traffic monitoring ([Bharat, 2024](#)). Though these technologies come with lots of advantages, there also remain certain concerns over data privacy, data security, and other ethical uses of AI policing. Many citizens lack awareness about these AI-powered policing technologies and the way they work ([Hill et al., 2022](#)). Moreover, the key factors of digital literacy, public trust, and ease of use also play an important role among the citizens in accepting or rejecting these SMART policing initiatives. This concern makes it important to understand the public perception and the factors influencing the acceptance of AI policing among the citizens of Jammu and Kashmir.

This research primarily aims to examine the ways in which the citizens of Jammu and Kashmir perceive the three AI-powered policing initiatives (AI-Powered Facial Recognition Systems, JKecop, and ITMS) and explores the levels of awareness, trust, and acceptance experienced among them. The study also identifies and analyzes the factors that influence the citizens attitudes towards SMART policing. The theoretical framework of Technology Acceptance Model (TAM) is used to explore the factors that influence the acceptance of the use of AI-riven policing technologies ([Davis, 1989](#)). This study is significant as it potentially helps policymakers, law enforcement agencies, and technology developers to understand the perception of AI policing and the factors of acceptance.

LITERATURE REVIEW

This section explores several pre-existing studies that explore various AI-powered policing, citizen engagement, and public perception, integrating the theoretical framework of TAM. Facial recognition technology is used as real-time surveillance in identifying potential suspects in crowded areas, while the ITMS uses AI algorithms to regulate traffic flow ([Kleinberg et al., 2019](#); [Jin et al., 2019](#)). Similarly, the JKecop provides a direct communication channel bridging police and citizens ([Jammu & Kashmir Police Website](#)). The review paper “Artificial intelligence in criminal justice management: a systematic literature review” by [Khairul Alam Talukder and Touhida Ferdousi Shompa \(2024\)](#) clearly indicates that AI-based crime prediction models have definitely enhanced law enforcement by reducing the history of crime and identifying high-risk areas. The study reviewed 37 articles that combine AI with Criminal Justice and Policing. The key findings of their study highlight the significance of AI’s transformative approach in analyzing large criminal data, predictive criminal activity, implementation of predictive policing, and gaps in regulatory frameworks.

[Nath and Barman \(2024\)](#) explored AI policing in India by examining its implementation in their study “AI-Policing in India- Existing Research and Where to Begin Future Research?”. This research significantly contributed to the understanding and development of AI in law enforcement within Indian context. The findings of this research indicate that automated policing systems had played a crucial role in proactive crime prevention strategies by potentially reducing crime rates before escalation. This study also compares random trials of the US with India, concluding that an AI-driven policing approach could enhance policing strategies and police transparency.

“AI Based Smart Surveillance System” authored by [Bhavyasri et.al \(2023\)](#), examined the AI-based intelligent surveillance and security system in Jammu and Kashmir. The researchers used Video data, Image data, Audio data, Surveillance data, Parametric condition, and Behavioral Analysis data as their primary research parameters. The research concludes with the finding that these AI Surveillance Systems are designed to provide automated decision-making ability, which was particularly beneficial in Jammu and Kashmir due to its sensitive security concerns. These AI systems have also improved the efficiency of public departments like healthcare and police services. Behavioral Analysis data have helped in closely analyzing suspicious activity and unusual behavior. The authors have firmly stated that the implementation of these AI Surveillance systems has played a significant role in security enhancement and response capability in Jammu and Kashmir.

Another study done by [Sadykov and Gajanayaka \(2024\)](#) titled “The use of artificial intelligence in law enforcement activity” discusses the application of AI in law enforcement by addressing facial recognition technology, crime forecasting, reduction of paperwork (e-challans), intelligent knowledge exchange (between citizens and police), and assistance of AI algorithms in crime investigation. This paper outlines various range of methods used to demonstrate the potential benefits of AI in law enforcement, to acknowledge the need for careful consideration associated with risks and ethical implications.

According to [Fred Davis \(1989\)](#), the Technological Acceptance Model (TAM) is perceived as a foundational framework to understand technological adoption, primarily through the concept of Perceived Ease of Use (PEOU) and Perceived Usefulness (PU). The TAM has evolved over the years with several additions highlighting its strength and limitations in different contexts. Several studies that integrate TAM with AI law enforcement have resulted in creating comprehensive and accurate findings ([Venkatesh et.al, 2012](#)). These literatures highlight both the potential benefits and challenges in AI-powered policing.

RESEARCH METHODOLOGY

The primary aim of this research is to examine the public perception of AI-powered policing technologies (AI-Powered Facial Recognition Systems, the JKecop mobile application, and Intelligent Traffic Management System (ITMS)) among the people of Jammu and Kashmir. This study also explores the factors that influence these citizens in accepting and trusting AI-policing technologies. Significance of this study is its potential to assist policymakers, law enforcement agencies, and technology developers to understand public perception in the era of digital transformation.

Research Objectives

RO1: To analyze Jammu and Kashmir citizens awareness and understanding of AI-powered policing technologies.

RO2: To study the factors influencing the acceptance of these AI-powered policing technologies using TAM.

RO3: To identify the concerns of privacy, security, and trust in AI policing.

Research Questions

RQ1: What are the components associated with public awareness and public perception in using AI-powered policing in Jammu and Kashmir?

RQ2: How do the usefulness and comfortability of the AI-policing technologies affect their acceptance among the citizens?

RQ3: What are the strategies that can enhance citizen engagement and trust over AI-powered tools?

This entire research is based upon the above-mentioned research objectives and research questions. This study uses the theoretical framework of the Technology Acceptance Model (TAM) developed by Fred Davis in 1989 to explore the level of perception and usage among the citizens of Jammu and Kashmir (J&K). A mixed methodological approach combining Quantitative and Qualitative is employed in this study to gain comprehensive and deeper understanding of public perception. For the quantitative method, the purposive sampling method is to select 200 respondents from various districts of Jammu and Kashmir, ensuring representation from different demographics. The age of samples ranges from 18 to 56 above. Data is collected through a hybrid mode (offline and online) by structured questionnaire focusing on awareness, perception, and acceptance of AI-powered policing technologies. The data was collected from the residents of Jammu and Srinagar Divisions. Data analysis is done using SPSS, where descriptive statistics is used to summarize demographical findings, correlation analysis to examine the relationship between the variable, and multiple regression to analyze the influential factors such

as perception, usefulness, each of using the AI-powered policing, and acceptance of the same. Whereas the Qualitative study is used to conduct in-depth interviews on 50 participants, each between 15 and 30 minutes through face-to-face and call, and their interviews were ethically recorded, transcribed, and analyzed through thematic analysis.

Statistical Analysis

The descriptive statistical analysis as shown in Table 1 offers a deeper understanding of the demographic composition of the 200 respondents based on age, gender, education level, employment status, and geographic divisions. Key measures, including frequency distribution and percentage, were used to analyze the respondents' demographics, awareness levels, and perceptions regarding AI policing technologies, such as ITMS cameras, JKecop app usage, and facial recognition systems. This analysis underscores strong participation among young professionals and students while identifying underrepresentation in older age groups and certain employment categories.

Table 1. Descriptive Statistics Table for Demographic

Demographic	Attribute	Frequency(N=200)	Percentage (%)
Age	26-35	50	25.00
	46-55	46	23.00
	18-25	37	18.50
	56 and above	37	18.50
	36-45	30	15.00
Gender	Male	104	52.00
	Female	96	48.00
Education Level	No formal education	47	23.50
	PhD or higher	44	22.00
	Master's degree	34	17.00
	Secondary school	26	13.00
	Bachelor's degree	25	12.50
	Primary school	24	12.00
Employment Status	Employed	44	22
	Self-employed	46	23
	Student	81	40.50
	Unemployed	29	14.50
Divisions	Jammu	118	59
	Srinagar	82	41
Source of Awareness	News media	48	24.00
	Social media	43	21.50
	Friends or family	39	19.50
	Government awareness programs	38	19.00
	Other	32	16.00
Heard about JKecop App	Yes	91	45.50
	No	109	54.50
Heard about ITMS	Yes	107	53.50
	No	93	46.50
Heard about Facial Recognition System	Yes	110	55.00
	No	90	45.00
Noticed ITMS Cameras	Yes	113	56.50
	No	87	43.50
Received Automated Fine	Yes	104	52.00
	No	96	48.00

Effectiveness of Facial Recognition	Yes	107	53.50
	No	93	46.50

The table 1 examines that the most frequent age category among the 200 respondents is 26-35, who belong to the young adult and working professional category. A high percentage of respondents in the 18-25 age group indicated active student participation, and the older age group (46 and above) is underrepresented as they reflect less engagement of older citizens with AI policing technologies. The most frequent gender category is *Male*, as it suggests that men have participated more in the survey compared to women. Most of the respondents have at least a Bachelor Degree and a greater number of respondents are students. The majority of participants reside in Jammu (59%) while Srinagar represents the remaining 41% of the population. News media and social media serve as primary sources of awareness about AI policing yet 54.5% of respondents still remain unfamiliar with the JKecop application. The awareness of ITMS and facial recognition systems shows moderate understanding from respondents at approximately 55%. The data shows that 56.5% of respondents have observed ITMS cameras and 52% have gotten automated traffic violations through these systems. The public holds a positive outlook toward facial recognition technology as 53.5% of people consider it effective.

Table 2. Correlation Table for the components associated with public awareness and public perception

Variables	Awareness of AI Policing	Source of Awareness	Frequency of Use
Perceived Safety	0.064	-0.039	0.012
Trust	0.005	0.054	0.049
Privacy Concerns	-0.025	0.054	0.057

The correlation of *table 2* examines the awareness of AI-policing technologies that have influenced perceived safety, the creation of trust in AI-powered policing, and privacy concerns. The analysis initially shows a weak positive correlation ($r=0.064$), between *Awareness of AI Policing* and *Perceived Safety*. Similar, positive correlation can be observed among the variables *Source of Awareness* vs. *Trust* and *Privacy Concerns* ($r=0.054$), *Frequency of AI Policing App usage* vs. *Privacy Concerns*, *Trust*, and *Perceived Safety*. The results displayed almost no correlation or a very weak positive correlation ($r=0.005$) between the *Awareness of AI Policing* and *Trust*. While a weak negative correlation among *Awareness of AI Policing* vs. *Privacy Concerns* ($r=-0.025$) and *Source of Awareness* vs. *Perceived Safety* ($r=-0.039$). The data interpretation clearly suggests that awareness of AI policing does not strongly assure safety perception among the citizens, and it does not directly influence the transparency of policing, but has slightly reduced privacy concerns among citizens. Citizens with knowledge of AI policing may have developed slight trust, and the frequency of using these AI policing systems have slightly made the citizens feel safer in terms of privacy issues and trust creation.

Table 3. Correlation Table for usefulness and comfortability of the AI-policing technologies that affect its acceptance

Variables	Effectiveness of Facial Recognition	Ease of Use	Comfortability
AI Policing Adoption	-0.021	0.057	0.005
Likelihood to Recommend	0.042	0.028	-0.109
Ethical Concerns	-0.134	0.012	0.018

The *table 3* displays the correlation conducted to understand the influence of usefulness and comfortability of the AI policing technologies in accepting the AI policing among the respondents. The analysis clearly shows that, a very weak correlation ($r=-0.134$) between the variable *Effectiveness of Facial Recognition* vs. *AI Policing Adoption* and *Ethical Concerns* and *Comfortability* vs. *Likelihood to Recommend* the technology to others. The analysis states that the respondents who trust the effectiveness of facial recognition technology slightly recommended AI policing tools to others, and the participants were not more or less concerned about ethics. A negligible relationship of $r=0.005$ can be sighted between the aspect of comfortability leading to the adoption of AI policing, proving that with an increase in comfortability of technology use, citizens would increase in adopting AI policing in their day-to-day life.

The correlation *table 4* displays the relationship between strategies that can be used to enhance citizen engagement in AI policing tools. A strong correlation ($r=0.521$) can be observed between *Community Engagement & Transparency in AI Policing vs. Engagement in AI Policing Awareness* suggests that the greater the transparency of AI policing, directly it increases citizen involvement in AI policing technologies and discussions. Moderate correlation ($r=0.418$) between the *Community Engagement & Transparency in AI Policing vs. Trust* implies the fact that respondents develop a sense of trust in AI policing more when they are actively informed about its processes.

Table 4. Correlation Table for strategies that can enhance citizen engagement and trust

Variable	Trust in AI Policing	Engagement in AI Policing Awareness	Willingness to Participate
Citizen Feedback Mechanisms	0.312	0.425	0.289
Government Regulation in AI Policing	0.237	0.401	0.345
Community Engagement & Transparency	0.418	0.521	0.397

The correlation of ($r=0.345$) suggests that the *willingness of citizens* to participate in AI policing increases with the government's AI policing regulations and initiatives. The correlation value of $r=0.425$ proves that citizen feedback mechanisms act as a strategy to increase the engagement of citizens in AI policing awareness. And $r=0.312$ suggests that citizens participation in feedback mechanisms improves their trust in AI policing tools. A very moderate positive value of ($r=0.237$) means that respondents don't easily trust government AI policing simply through their regulations; instead, it requires transparency and community involvement.

Table 5. Multiple Regression of Predicting Trust in AI Policing

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for β	
	β	Std. Error	Beta			Lower Bond	Upper Bond
Constant	5.321	1.204		4.42	0.000	2.958	7.684
Community Engagement	0.312	0.312	0.312	5.78	0.001	0.189	0.435
Citizen Feedback	0.275	0.061	0.275	4.51	0.004	0.123	0.427
Government Regulation	0.197	0.058	0.197	3.39	0.021	0.081	0.313

The multiple regression stated in *Table 5* demonstrates the values through the calculation $Trust\ in\ AI\ Policing = \beta_0 + \beta_1 (Community\ Engagement) + \beta_2 (Citizen\ Feedback) + \beta_3 (Government\ Regulation) + e$. The intercept β_0 is 5.321, Community Engagement β_1 is 0.312, Citizen Feedback β_2 is 0.275, and Government Regulation β_3 is 0.197, which equals to 7.788. Community engagement ($\beta = 0.312$, sig. p value = 0.001) among the respondents acts as the strongest predictor of trust in AI Policing, meaning that with more citizen engagement in AI Policing Community Awareness encourages them to develop a trust in AI policing tools. The variable of citizen feedback ($p=0.004$) signifies the higher impact of trust, which means a citizen's ability to give feedback increases their confidence in AI Policing tools. Government Regulations ($p=0.021$) have a moderate effect on improving respondents' trust.

Table 6. Multiple Regression on Understanding What Drives AI Policing Adoption

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for β	
	β	Std. Error	Beta			Lower Bond	Upper Bond
Constant	4.21	1.091		3.86	0.000	2.064	6.356

Perceived Usefulness	0.482	0.059	0.482	8.17	0.000	0.366	0.598
Ease of Use	0.234	0.063	0.234	3.71	0.009	0.108	0.36
Comfortability	0.121	0.055	0.121	2.2	0.045	0.012	0.23

The table 6 details the values through the calculation $AI\ Policing\ Adoption = \beta_0 + \beta_1 (Perceived\ Usefulness) + \beta_2 (Ease\ of\ Use) + \beta_3 (Comfortability) + e$. The intercept β_0 is 4.210, Perceived Usefulness β_1 is 0.482, Ease of Use β_2 is 0.234, and Comfortability β_3 is 0.121, which equals to 7.806. The usefulness of AI Policing tools effectively leads to AI policing tool adoption. User friendliness (ease of use) increases the AI policing technology adoption, and comfortability has weak significance ($p=0.045$).

Table 7. Multiple Regression on Evaluating Factors Influencing Willingness to Participate in AI Policing

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for β	
	β	Std. Error				Lower Bond	Upper Bond
Constant	3.892	1.152		3.38	0.000	1.644	6.14
Trust in AI Policing	0.389	0.057	0.389	6.82	0.001	0.277	0.501
Awareness of AI Policing	0.275	0.064	0.275	4.29	0.005	0.151	0.399
Government Regulation	0.188	0.061	0.188	3.08	0.190	0.079	0.297
Ethical Concerns	-0.267	0.065	-0.267	-4.1	0.006	-0.395	-0.139

The calculation of Table 7 is processed through $Willingness\ to\ Participate\ in\ AI\ Policing = \beta_0 + \beta_1 (Trust\ in\ AI\ Policing) + \beta_2 (Awareness\ of\ AI\ Policing) + \beta_3 (Government\ Regulation) + \beta_4 (Ethical\ Concerns) + e$. The intercept β_0 is 3.892, Trust in AI policing β_1 is 0.389, Awareness of AI Policing β_2 is 0.275, Government Regulation β_3 is 0.188, and Ethical Concerns β_4 is 0.297, which equals to 5.314. The trust ($p=0.001$) significantly increases the willingness of the respondents to participate in AI policing tools and awareness. While awareness of these AI Policing ($p=0.005$) plays an important role in influencing respondents to participate in AI policing tools. The ethical concern ($p=0.006$) displays that respondents with higher ethical concerns are less likely to engage in AI Policing tools.

Table 8. Multiple Regression on Investigating the Impact of Awareness on Privacy Concerns

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for β	
	β	Std. Error				Lower Bond	Upper Bond
Constant	2.641	1.032		2.56	0.000	0.617	4.665
Awareness of AI Policing	0.312	0.059	0.312	5.29	0.002	0.194	0.43
Source of Awareness	0.127	0.062	0.127	2.05	0.045	0.006	0.248
Frequency of Use	-0.192	0.058	-0.192	-3.3	0.014	-0.3006	-0.078

The multiple regression stated in Table 8 demonstrates the values through the calculation $Privacy\ Concerns = \beta_0 + \beta_1 (Awareness) + \beta_2 (Source\ of\ Awareness) + \beta_3 (Frequency\ of\ Use) + e$. The intercept β_0 is 2.641, Awareness

β_1 is 0.312, Source of Awareness β_2 is 0.127, and Frequency of Use β_3 is -0.192, which equals to 3.886. Awareness of AI Policing Technologies ($p=0.002$) is significant with privacy concerns, and the frequency of use has a moderate negative effect as respondents are familiar with AI policing. While the source of awareness ($p=0.045$) has weak significance with privacy concerns.

Table 9. Multiple Regression on Understanding What Encourages Citizen Engagement in AI Policing

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for β	
	β	Std. Error	Beta			Lower Bound	Upper Bound
Constant	6.019	1.175		-5.1	0.000	3.713	8.325
Perceived Safety	0.398	0.053	0.398	7.51	0.001	0.294	0.502
Trust in AI Policing	0.365	0.058	0.365	6.29	0.002	0.249	0.481
Community Engagement	0.291	0.061	0.291	4.77	0.004	0.169	0.413
Government Regulation	0.122	0.060	0.122	2.030	0.048	0.004	0.240

Table 9 details the values through the calculation $Citizen\ Engagement = \beta_0 + \beta_1 (Perceived\ Safety) + \beta_2 (Trust) + \beta_3 (Community\ Engagement) + \beta_4 (Government\ Regulation) + e$. The intercept β_0 is 6.019, Perceived Safety β_1 is 0.398, Trust in AI β_2 is 0.365, Community Engagement β_3 is 0.291, and Government Regulation β_4 is 0.122, which equals to 8.975. Perceived Safety ($p=0.001$) is the strongest predictor of citizen engagement, as respondents feel safer to engage in AI policing tools more when they are aware of its safety. Similarly, Trust ($p=0.002$) and Community Engagement ($p=0.004$) significantly impact citizens engagement in AI Policing.

Interview Analysis

This section deeply analyzes the 50 in-depth interviews conducted among the citizens of Jammu & Kashmir. The thematic analysis is adopted to understand participants *perceptions, acceptance, and concerns regarding AI-powered policing technologies*. The analysis is aligned with the three primary objectives of this study.

Awareness and understanding of AI-Powered Policing Tools

A significant number of participants had a medium level of awareness regarding the AI policing tools, such as AI-Based Facial Recognition Systems, the Intelligent Traffic Management System (ITMS), and the JKecop. However, only 18 out of 50 participants were able to describe the specificity of these three AI policing tools. Most of the participants had learned about these AI-powered policing tools from various sources. News has helped the majority of the participants (22 out of 50), while 10 participants have received the information about these AI policing tools through word of mouth from family, friends, and colleagues. While only 8 participants have learned about it through social media, and 10 participants had very limited or minimal awareness of these AI policing tools, especially JKecop. In terms of crime prevention, 30 participants strongly stated that these AI policing tools had made law enforcement in their areas (Jammu & Samba) effective by reducing crime rates and improving traffic management. And 12 participants expressed their feeling of doubt due to a lack of visible results in their day-to-day life.

The majority of participants (25 out of 50) expressed their deep concern over the bias and accuracy, which has influenced their ability to accept these AI policing tools, while 12 participants trusted AI over humans due to the lack of human bias. And 13 participants remained neutral as they focused more on trust, performance, and transparency of these AI policing tools. Most of the participants have used the JKecop app, and have experienced difficulties in using the app due to a lack of application knowledge. Only 7 participants among the 50 expressed their ease of using the JKecop app.

Privacy, security, and ethical issues can be observed amongst 32 participants, who felt that AI-powered policing evoked privacy concerns, 14 of them expressed that AI surveillance has enhanced their public safety, and 4 of them had fewer ideas about AI's impact on their privacy. Participants (21 of 50) were scared of AI policing tools, as they were confused about how these technologies may use their data. While 10 participants felt that AI might make errors in identifying criminals, and 19 participants were unsure of AI bias being a real concern. Government regulations have played an important role in ensuring ethical concerns in the usage of AI policing tools, as the majority of them supported the same. While 10 participants were uncertain about the requirement of these AI policies, and 5 of them did not feel the need for these AI policies as they might delay its progress.\

FINDINGS OF THE STUDY

The findings integrate both quantitative and qualitative data analysis to present a deep understanding of Jammu and Kashmir citizens perceptions on AI-powered policing technologies. Key findings highlight similarities and differences between the numerical data and interview insights.

The respondents are generally aware of AI policing's existence, but the detailed knowledge of the same is limited. The interview analysis suggests that media exposure is the primary driver of awareness, while the few responses reveal that their knowledge on AI policing tools is often superficial. The weak correlation between the awareness and trust ($r=0.005$) along with the interview findings assures that most of the samples remain skeptical about AI policing despite their awareness of it. Usefulness of these AI policing tools acts are the primary concern among the samples in driving them to adopt them, which is evident from the multiple regression analysis. Citizens have limited trust in these AI policing SMART technologies, which are strongly influenced by continuous community engagement and feedback rather than mere awareness. Similarly, samples stated the limited transparency of these technologies has been holding them back from their application, which also questions these systems trustworthiness.

Most of the participants were worried over surveillance, data security, and AI data misuse rather than privacy. The same aligns with the statistical findings, too, as ethical concerns negatively impacted the adoption of AI-powered law enforcement tools. Frequent and daily users of these technologies had lower privacy concerns due to their increased familiarity and comfortability. Both quantitative and qualitative methods confirmed the fact that transparency, community engagement, and trust played a vital role in influencing people's participation and adaptation. Though the samples felt the immense necessity for prioritizing clear AI policing policies, which are made accessible to ordinary citizens too.

POLICY IMPLICATION

The findings suggest that future policy should prioritize trust-building as much as technical deployment. Because perceived usefulness and trust appear to support citizens' acceptance of facial recognition, ITMS, and JKecop, while awareness remains shallow, the Jammu and Kashmir administration and police should invest in sustained public-awareness programmes that explain what each system does, where it is used, what data it collects, and what safeguards apply. These campaigns should be paired with multilingual interfaces and outreach in Urdu, Kashmiri, Hindi, and English so that accessibility, not only innovation, shapes adoption. For a citizen-facing system such as JKecop, ease of use should be treated as a policy variable: simple reporting flows, clear consent language, and local-language help features are likely to improve informed use without overstating technological capability (Davis, 1989; European Commission, 2019).

At the same time, the persistence of privacy, surveillance, and bias concerns implies that legitimacy will depend on visible governance safeguards rather than awareness alone. A credible framework would include published data-protection rules, periodic algorithmic and accuracy audits, human oversight for high-impact decisions, and an accessible grievance-redress mechanism through which citizens can contest errors or misuse. Participatory governance is especially important for facial-recognition and other surveillance tools: structured consultation, citizen feedback forums, and public reporting can improve accountability and reduce the trust deficit associated with opaque policing technologies (Joh, 2021; Hill et al., 2022). This direction aligns with major governance guidance that treats transparency, privacy, traceability, and human oversight as prerequisites for trustworthy public-sector AI (UNESCO, 2021; NIST, 2023; European Commission, 2019).

CONCLUSION

The integration of Artificial Intelligence (AI) within the policing practices has significantly garnered attention, particularly in the regions of Jammu and Kashmir (J&K), which is a region with security concerns. This study brings forth interesting insights, as these AI policing technologies (AI-Based Facial Recognition Systems, ITMS, and JKecop) have definitely enhanced the security and efficiency of law enforcement in Jammu and Kashmir. However, the successful adaptation of these technologies is in the hands of the public, which is influenced by awareness, perceived usefulness, trust, and ethical consideration. The AI-powered SMART policing tools; AI-Based Facial Recognition Systems, the Intelligent Traffic Management System (ITMS), and the JKecop mobile application have been widely used by the participants as they are moderately aware of them. A significant gap between general awareness and detailed understanding can be concluded through the findings of this study, which has limited the citizens ability to actively engage with these AI policing tools. Comprehensive public education initiative from the government can reduce this gap, informing more citizens about the AI-powered tools application in policing. Utilization of the Technology Acceptance Model (TAM) provided this study with data analytical parameters, suggesting the fact that citizens are more inclined to adopt AI policing technologies if they are more user-friendly and effective. This fact highlights the importance of enhancing acceptance of these tools through ensuring AI's accuracy and bias.

Privacy and ethical concerns have emerged as significant barriers among the citizens of Jammu and Kashmir (J&K) in accepting these SMART AI policing, as these concerns are also stated in several existing literatures. The need for ethical guidelines and transparent data handling acts as a foundation to build public trust in AI policing ([Info-Tech Research Group, 2024](#)). Citizens demand their involvement in decision-making through regular feedback mechanisms and clear communication from government authorities. This finding aligns perfectly with the recommendations mentioned in [Police Chief Magazine \(2024\)](#). This study finally concludes with the idea that the authorities had to address the identified concern and activity, involving citizens in community awareness and fostering a collaborative environment, which shall support the responsible adoption of AI-powered policing in Jammu and Kashmir. The use of these AI-powered policing tools (AI-Based Facial Recognition Systems, ITMS, and JKecop) in daily life acts as a transformational opportunity to enhance crime prevention and public safety through efficient law enforcement.

LIMITATIONS AND FUTURE RESEARCH

Initiatives focusing more on educating citizens (the public) through targeted campaigns could enhance the understanding of these AI policing tools. These educational campaigns must focus more on the functionalities, benefits, and limitations of these AI tools. Concentrating more on the development and enforcement of these AI policing systems with appropriate and ethical guidelines can ensure public trust through data privacy and unbiasedness.

The creation of a new platform for citizen interaction and engagement can provide a space for them to interact and participate through a feedback mechanism, which can be used for the improvement of AI policing strategies. Such an open and transparent channel of communication shall attract and inform citizens about all the SMART AI initiatives, resulting in the formation of an informed public.

Providing multilingual options, especially focusing on regional and local languages like Urdu, Kashmiri, Hindi, and English, can break communication barriers. Policymakers can work along with the AI application developers and legal advisors to draft clear AI guidelines. The successful implementation of these recommendations can definitely create a responsible and public-friendly AI policing SMART system with data privacy and public safety in J&K.

AUTHOR DECLARATIONS

CRedit Author Statement / Author contributions

Siddharth Mahajan: Conceptualisation; Formal Analysis; Investigation; Writing – Original Draft, Writing – Data Curation.

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