

Building Satisfaction through Trust: The Impact of Technology Integration on Malaysian Policing

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Abstract

This study investigates the role of technology integration in shaping public satisfaction with police services in Malaysia, with trust examined as a mediating factor. Drawing on the Technology Acceptance Model (TAM) and Institutional Trust Theory, the research conceptualises satisfaction as a functional and relational outcome, determined by the efficiency of digital tools and the degree to which policing institutions are perceived as fair and trustworthy. Data were collected from 417 respondents residing in Klang Valley, the country's most urbanised region, using a survey administered via social media platforms. The Technology Integration, Trust, and Public Satisfaction constructs were measured with validated scales and analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM). The results show that technology integration significantly enhances public satisfaction and strengthens institutional trust. Trust, in turn, strongly influences satisfaction and partially mediates the relationship between technology and satisfaction. The findings suggest that while digital policing reforms improve efficiency and accessibility, their impact on satisfaction is magnified when supported by citizens' trust in the police. The study extends theory by integrating TAM and Institutional Trust Theory in a non-Western policing context. It also offers practical implications for police organisations and policymakers, emphasising the importance of designing citizen-centred digital platforms, training officers to use technology transparently, and embedding reforms within broader accountability frameworks. By situating Malaysia within wider international debates on digital policing, the study highlights that technology and trust must advance together to secure meaningful public satisfaction.

Keywords: Technology Integration, Institutional Trust, Public Satisfaction, Malaysian Policing, Digital Policing

Introduction

Technology integration into policing has emerged as one of the most significant developments in contemporary law enforcement. Across the globe, digital platforms and technological innovations are increasingly deployed to improve police effectiveness, strengthen accountability, and enhance public trust. Such technologies range from body-worn cameras, predictive policing algorithms, and artificial intelligence applications to online

crime reporting systems and mobile applications for public engagement. These innovations are promoted as mechanisms to modernise policing, reduce inefficiencies, and address citizens' rising expectations for responsive and transparent services (Jonathan-Zamir et al., 2024).

In many jurisdictions, technology is framed as a critical enabler of legitimacy. For instance, in the United States and the United Kingdom, body-worn cameras have been linked to improvements in citizen confidence and reductions in complaints when deployed transparently (Reisig & Trinkner, 2024a). In Australia and Canada, predictive policing systems have been introduced to optimise resource allocation, although debates continue about potential biases in algorithmic decision-making (Elphick et al., 2021). These examples highlight a broader trend: while technology can enhance service quality, its success depends on how it is embedded within institutional frameworks and interpreted by the public.

In Asia, digital policing reforms have gained traction in recent years. Singapore has pioneered innovative surveillance systems and mobile platforms allowing citizens to report crimes and receive real-time updates (Woods et al., 2025). China has rapidly expanded the use of artificial intelligence, facial recognition, and big data analytics in policing, with efficiency gains and widespread concerns regarding privacy and accountability (Li, 2024). India has introduced mobile policing applications and online platforms to improve accessibility, though success varies depending on levels of institutional trust and infrastructure (Murphy, 2025). These developments underline that technology is not a neutral tool; institutional trust, cultural norms, and socio-political contexts condition its meaning and impact.

Malaysia provides a particularly relevant setting for examining the intersection of technology, trust, and satisfaction. As part of the Government Transformation Programme (GTP), the Royal Malaysia Police (RMP) introduced several digital reforms under the National Key Results Areas (NKRA), aimed at reducing crime and enhancing service efficiency (Siddiquee, 2014). These initiatives included online crime reporting systems, digital databases, and mobile platforms intended to improve responsiveness and accessibility. Faizal et al. (2025) emphasise that such reforms are central to modernising police services in line with global trends. However, questions remain about how the public perceives these innovations (Yahya et al., 2024). While digitalisation may increase efficiency, public satisfaction ultimately depends on whether citizens trust the police to use technology transparently, fairly, and with accountability.

Trust is especially salient in the Malaysian context. Public confidence in the police has historically been influenced by concerns regarding accountability and responsiveness (Skogan, 2009). Surveys and independent reports have suggested that while citizens appreciate reforms designed to improve service delivery, scepticism persists when practices are viewed as opaque or politically influenced. In such circumstances, the adoption of new technologies may generate mixed responses. On one hand, citizens may welcome digital tools that enhance accessibility and convenience. On the other hand, without trust, these same tools may be interpreted as surveillance and control mechanisms, thereby undermining satisfaction.

Theoretically, the relationship between technology and satisfaction can be understood through the Technology Acceptance Model (TAM), which identifies perceived usefulness and ease of use as central predictors of adoption (Davis, 1989; Venkatesh et al., 2003). In policing, TAM suggests that citizens are more likely to evaluate digital reforms positively if they believe these tools genuinely improve service quality and are simple to use. However, TAM alone cannot fully explain why citizens remain sceptical of technological innovations even when their functional benefits are clear. Institutional Trust Theory offers a complementary perspective, emphasising that public evaluations are shaped by perceptions of fairness, transparency, and legitimacy (Sunshine & Tyler, 2003; Tyler, 1990). From this perspective, trust mediates the relationship between technology and satisfaction: when trust is strong, technology is more likely to be perceived as a genuine improvement in service delivery; when trust is weak, it may be seen as intrusive or ineffective.

The present study builds upon these theoretical insights by focusing specifically on the context of Malaysian policing. The analysis centres on two hypotheses: (i) that technology integration has a significant positive effect on public satisfaction with police services, and (ii) that trust mediates this relationship. By testing these hypotheses, the study makes three contributions. First, it extends the application of TAM to policing in a non-Western context, where cultural and institutional factors shape technology adoption differently. Second, it integrates TAM with Institutional Trust Theory, demonstrating that functional and institutional perspectives are necessary to explain satisfaction. Third, it enriches the literature on policing in Asia, which remains underrepresented compared to Western democracies.

The empirical analysis draws on survey data from 417 valid responses in Klang Valley, Malaysia, analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM). The findings confirm that technology integration significantly enhances public satisfaction and that trust partially mediates this relationship. These results highlight that digital reforms in policing cannot be evaluated in isolation from institutional trust. While technology can improve satisfaction directly, its impact is amplified when citizens perceive the police as transparent, fair, and legitimate.

Accordingly, this article is structured as follows. Section 2 reviews the literature and develops the hypotheses. Section 3 outlines the methodology, including data collection and analytical techniques. Section 4 presents the results of the empirical analysis. Section 5 discusses the findings concerning existing research and outlines their theoretical, practical, and policy implications. Section 6 concludes by summarising the main contributions and suggesting directions for future research.

Theoretical Background

Technology Integration in Policing

Technology integration in public services has become central to the transformation of governance in the twenty-first century. In policing, technology integration refers to adopting digital platforms, online systems, and mobile applications designed to improve service delivery, enhance efficiency, and foster closer connections between law enforcement agencies and citizens (Ekaabi et al., 2020a). Such innovations are intended to increase accessibility, reduce bureaucratic barriers, and support more transparent communication.

In practice, technology integration in policing encompasses a wide range of tools. These include online crime reporting portals, computer-aided dispatch systems, predictive crime mapping, digital databases, mobile police applications, and body-worn cameras. Their promise makes policing more citizen-centred by streamlining interactions between officers and the public. For example, online reporting enables citizens to file complaints without visiting a station, while mobile applications provide direct channels for information dissemination and feedback (Jonathan-Zamir et al., 2024).

The Technology Acceptance Model (TAM) provides a theoretical foundation for examining public reactions to such reforms. Developed by Davis (1989), TAM argues that technology adoption is determined by two key perceptions: *perceived usefulness*, defined as the belief that a technology improves task performance, and *perceived ease of use*, defined as the belief that it is free from effort. Later extensions of TAM incorporated social influence and facilitating conditions (Venkatesh et al., 2003), recognising that contextual factors shape adoption beyond individual perceptions.

In policing, TAM suggests that citizens are more likely to embrace technology when they perceive it enhances service quality and is simple to use. This statement is supported by empirical research. Ekaabi et al. (2020b) reported that digital service platforms in the United Arab Emirates were associated with higher satisfaction when citizens believed them efficient and user-friendly. Jonathan-Zamir et al. (2024) found that body-worn cameras in Israel improved satisfaction when the public viewed them as helpful in ensuring accountability. These findings underscore the relevance of TAM for explaining public evaluations of policing innovations.

Malaysia has invested in digital policing as part of the National Key Results Areas (NKRA) under the (Siddiquee, 2022). Initiatives such as online crime reporting and mobile platforms have been introduced by the Royal Malaysia Police (RMP) to improve responsiveness and reduce crime. Nevertheless, the extent to which these innovations enhance satisfaction depends on whether citizens perceive them as valuable and accessible. Building on TAM, this study posits that technology integration should have a direct positive effect on satisfaction.

H1: Technology integration significantly predicts public satisfaction with police services.

Public Satisfaction in Policing

Public satisfaction is widely recognised as a key outcome measure in evaluating the performance and legitimacy of police organisations. It reflects the extent to which citizens perceive that their expectations of police services are met and whether their interactions with officers are fair, responsive, and respectful (Sunshine & Tyler, 2003; Yesberg et al., 2024). In policing, satisfaction goes beyond a narrow service quality assessment and encompasses broader judgments about legitimacy, fairness, and institutional trust.

Scholars have argued that satisfaction is multidimensional, shaped by instrumental and relational factors. Instrumental factors relate to the efficiency and effectiveness of service delivery, such as timely response, accessibility of services, and problem-solving capacity (Reisig and Trinkner 2024). Relational factors, by contrast, concern how individuals are treated during encounters, particularly with respect to procedural fairness, dignity, and transparency (Tyler, 1990). Studies consistently show that both dimensions influence

satisfaction, though relational concerns often outweigh instrumental ones in shaping overall evaluations of the police (Sunshine & Tyler, 2003).

In Malaysia, public satisfaction with the police has been a focal point of governance reforms. Initiatives under the National Key Results Areas (NKRA) sought not only to reduce crime but also to improve perceptions of the Royal Malaysia Police (RMP) as responsive and citizen-centred (Siddiquee, 2014). However, independent studies have highlighted persistent concerns regarding accountability, transparency, and responsiveness (Abdullah et al., 2022). These concerns underscore that satisfaction cannot be achieved through efficiency alone; it requires sustained efforts to build trust and legitimacy.

Technology integration is increasingly promoted to improve satisfaction by enhancing service delivery. Digital tools like online reporting portals, mobile applications, and digital databases are designed to reduce barriers and provide citizens with more accessible and responsive services. When effective, these platforms can increase satisfaction by demonstrating that the police are modern, efficient, and aligned with citizen needs (Ekaabi et al., 2020a). However, satisfaction is not determined by functionality alone. The manner in which technology is deployed and the degree to which it aligns with citizens' expectations of fairness and accountability are equally critical.

International evidence illustrates this dynamic. In Western contexts, digital reforms such as body-worn cameras and online reporting systems have improved satisfaction when used transparently and fairly (Jonathan-Zamir et al., 2024). Conversely, satisfaction may decline despite efficiency gains in contexts where technology is perceived as intrusive or biased (Elphick et al., 2021). In Asia, satisfaction levels vary according to institutional trust. In Singapore, high trust has amplified the positive effects of digitalisation (Woods et al., 2025), whereas in China and India, satisfaction with digital policing is mixed, reflecting broader scepticism about institutional accountability (Li, 2024; Murphy, 2025).

The Malaysian case demonstrates a similar complexity. Citizens may welcome reforms that make policing more efficient, but satisfaction ultimately depends on trust in the institution implementing them. It underlines that public satisfaction is not merely a by-product of service improvements but a reflection of broader legitimacy evaluations. Accordingly, the present study positions public satisfaction as the dependent variable that captures the overall outcome of technology integration, mediated by institutional trust.

Institutional Trust and Public Satisfaction

Trust has long been recognised as central to citizen evaluations of public institutions. In policing, trust refers to the belief that officers and organisations will act reasonably, transparently, and in the community's best interests (Sunshine & Tyler, 2003; Tyler, 1990). It encompasses perceptions of competence, integrity, and benevolence. High levels of trust encourage citizens to cooperate with the police, comply with the law, and evaluate services more positively (Murphy, 2025).

The relevance of trust is particularly evident in contexts where institutional legitimacy cannot be assumed. In Malaysia, public confidence in the police has been shaped by concerns regarding accountability, transparency, and responsiveness (Hassan & Abdullah, 2018). While

reforms under the NKRA aim to improve service delivery, citizens may remain sceptical unless they believe that the police will use technology responsibly and fairly.

The literature highlights that technology can affect trust in both positive and negative ways. On one hand, digital platforms can signal competence and transparency, thereby building trust (Reisig and Trinkner 2024). For instance, online reporting systems that provide timely feedback may demonstrate organisational responsiveness. On the other hand, technology may undermine trust if perceived as intrusive or biased. Elphick et al. (2021) argue that surveillance technologies may erode confidence if citizens believe they prioritise control over service.

Accordingly, trust can be conceptualised as a mediator between technology integration and satisfaction. Technology may improve satisfaction directly by enhancing efficiency, but it also improves satisfaction indirectly by fostering trust. When citizens trust the police, they are more likely to interpret digital reforms as legitimate and beneficial.

H2: Trust mediates the relationship between technology integration and public satisfaction.

Comparative Perspectives: Western and Asian Contexts

A comparison of Western and Asian contexts reveals that institutional environments shape the relationship between technology, trust, and satisfaction. In Western democracies, digital technologies are often framed as accountability mechanisms. For example, body-worn cameras in the United States and the United Kingdom have been linked to higher satisfaction when they promote transparency (Zolkepli, 2024). Predictive policing has also been positively received when safeguards against bias are implemented (Jonathan-Zamir et al., 2024).

In Asia, the picture is more complex. Singapore's digital policing platforms have been widely accepted due to high institutional trust (Woods et al., 2025). In contrast, despite efficiency gains, China's extensive surveillance and artificial intelligence use have raised privacy concerns (Li, 2024). India presents a mixed case, where mobile policing applications have improved reporting, but their success depends on local trust levels (Murphy, 2025).

Malaysia shares features of both trajectories. Like Singapore, it has embraced digitalisation as part of a broader governance agenda. However, like India and China, it faces challenges of public trust. The mediation effect hypothesised here reflects this context: while technology is expected to improve satisfaction, its impact is contingent on levels of trust.

Conceptual Framework

Drawing on TAM and Institutional Trust Theory, the study conceptualises technology integration as influencing public satisfaction directly and indirectly through trust. Figure 1 illustrates this framework, adapted from the thesis conceptual model, focusing on the Technology Integration (TI) – Trust (TR) – Public Satisfaction (PS) pathway. This framework highlights that while technology is expected to enhance satisfaction directly, its impact is amplified when institutional trust exists.

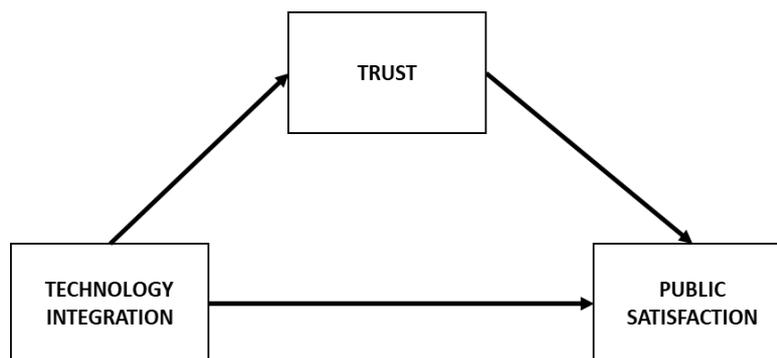


Figure 1. Conceptual Framework

Methodology

This study employed a quantitative, cross-sectional survey design to investigate technology integration's direct and indirect effects on public satisfaction with police services in Malaysia, with trust as a mediating variable. A cross-sectional approach was deemed appropriate because it allowed for the simultaneous collection of standardised data from many respondents, enabling hypothesis testing and model evaluation (Creswell, 2014; Hair et al., 2021). The research was situated in Klang Valley, which encompasses Kuala Lumpur and Selangor. This urban region was selected because it represents the focal point of Malaysia's policing reforms and the introduction of digital platforms such as online reporting systems, digital databases, and mobile applications. These initiatives, implemented under the Government Transformation Programme, made Klang Valley suitable for examining public responses to technology-enabled policing.

Data were collected using a convenience sampling approach, which was appropriate given the time and access constraints of the study. While convenience sampling does not produce a fully representative sample, it is widely applied in exploratory research and model testing where the objective is to examine theoretical relationships rather than population parameters (Sekaran & Bougie, 2019). The survey was created using Google Forms and was randomly disseminated across major social media platforms, including WhatsApp, Facebook, and Telegram. These channels were selected because they are widely used by Malaysians and facilitated broad outreach when face-to-face data collection was limited. A total of 453 responses were received, of which 417 were retained for analysis after data screening. This number exceeded the minimum sample size requirements for structural equation modelling, providing adequate power for hypothesis testing (Hair et al., 2019).

The demographic profile of respondents reflected the diversity of Klang Valley's population. Participants included male and female respondents across a broad age spectrum, with a majority falling in the 21 to 40 age range. Educational attainment ranged from secondary school qualifications to postgraduate degrees, with most respondents reporting tertiary-level education. Employment categories included students, private-sector employees, government servants, and self-employed individuals. Household incomes also varied widely, ensuring representation across low-, middle-, and higher-income groups. This diversity enhanced the general relevance of the findings by capturing perspectives from different demographic segments of the community.

The measurement instrument was designed using established scales drawn from previous studies and adapted to the context of Malaysian policing. Technology Integration (TI) was measured using six items that assessed the perceived usefulness, accessibility, and responsiveness of digital policing platforms (Ekaabi et al., 2020a). Trust (TR) was measured using seven items based on Institutional Trust Theory, capturing perceptions of fairness, transparency, integrity, and overall confidence in the police (Sunshine & Tyler, 2003; Tyler, 1990; Yesberg et al., 2024). Public Satisfaction (PS), the dependent variable, was measured using six items that reflected citizens' evaluations of police performance, responsiveness, and overall service quality (Hassan & Abdullah, 2017). All items were measured on a five-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). The questionnaire was administered in English and Malay, with minor adjustments to ensure cultural appropriateness and linguistic clarity.

A pilot study was conducted with 58 respondents to test the reliability and clarity of the instrument. The results demonstrated satisfactory internal consistency, with Cronbach's alpha values above all constructs' recommended threshold of 0.70 (Peterson, 1994). Feedback from the pilot participants was used to refine the wording of several items, ensuring that key terms such as "digital reporting system" and "mobile policing application" were easily understood. The positive pilot results confirmed the instrument's suitability for full deployment.

Data screening was conducted prior to analysis to ensure accuracy and robustness. Responses with excessive missing data, straight-line answering patterns, or inconsistencies were removed, reducing the total sample from 453 to 417 valid cases. The dataset was further examined for outliers and distributional issues, and no significant anomalies were detected. Respondents were assured anonymity and confidentiality to mitigate Common Method Bias (CMB), and items were carefully worded to reduce ambiguity. Harman's single-factor test indicated that no single factor accounted for most variance, suggesting that CMB was not a serious concern (Podsakoff et al., 2003).

The data were analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM) with SmartPLS software. PLS-SEM was selected because it is well-suited for predictive and exploratory models, allows for analysing mediation effects, and is robust to violations of normality assumptions (Hair et al., 2019; Henseler et al., 2015). It is also effective with moderate sample sizes and has become a widely accepted method in social sciences for analysing complex structural models. Following the two-step procedure recommended by Hair et al. (2019), the measurement model was first assessed for reliability and validity using Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE). Discriminant validity was evaluated using the Fornell–Larcker criterion and the Heterotrait–Monotrait Ratio (HTMT). The structural model was then evaluated by examining path coefficients, t-values, and p-values obtained through bootstrapping with 5,000 resamples. Additional model assessments included the coefficient of determination (R^2), effect sizes (f^2), and predictive relevance (Q^2).

Ethical considerations were strictly observed throughout the study. Respondents were informed of the voluntary nature of participation and provided informed consent before completing the questionnaire. Anonymity was ensured by avoiding the collection personally

identifiable information, and confidentiality of responses was guaranteed. The study was conducted per established ethical guidelines for social science research, adhering to respect, beneficence, and justice principles.

The methodology combined a cross-sectional survey design, convenience sampling, a validated instrument, and advanced analytical techniques to provide a rigorous basis for testing the study's hypotheses. The approach was appropriate to the research objectives and ensured that the findings were reliable and relevant to the context of policing in Malaysia.

Results

The data collected from 417 valid responses in Klang Valley were analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM) with SmartPLS. The evaluation followed the two-step procedure outlined by Hair et al. (2019), beginning with assessing the measurement model to confirm reliability and validity, followed by evaluating the structural model to test the hypothesised relationships.

Descriptive statistics provided initial insights into citizens' perceptions. For Technology Integration (TI), mean scores for the six items ranged between 3.72 and 3.95. This result suggests respondents agreed that digital policing tools such as online reporting systems and mobile applications were useful and accessible. Trust (TR) items scored between 3.60 and 3.83, reflecting moderate to strong confidence in the fairness, transparency, and integrity of the police. The recorded public satisfaction (PS) items ranged from 3.68 to 3.89, demonstrating that respondents were moderately satisfied with the services provided by the Royal Malaysia Police (RMP). The consistency of these results suggests that while citizens recognise the functional benefits of technology, their overall satisfaction remains closely tied to levels of institutional trust.

The measurement model was evaluated using Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE). As shown in Table 1, all constructs met the recommended thresholds, with Cronbach's alpha and CR values exceeding 0.70, and AVE values above 0.50 (Hair et al., 2019). These results confirm that the items used to measure Technology Integration, Trust, and Public Satisfaction were internally consistent and demonstrated satisfactory convergent validity.

Table 1
Reliability and Validity of Constructs

| Construct | Cronbach's Alpha | Composite Reliability (CR) | Average Variance Extracted (AVE) |
|------------------------|------------------|----------------------------|----------------------------------|
| Technology Integration | 0.85 | 0.89 | 0.58 |
| Trust | 0.88 | 0.91 | 0.61 |
| Public Satisfaction | 0.87 | 0.90 | 0.60 |

Discriminant validity was assessed using the Fornell–Larcker criterion and the heterotrait–monotrait ratio (HTMT). The square root of each construct's AVE exceeded its correlations with other constructs, and all HTMT values were below the conservative threshold of 0.85. These results indicate that the constructs were empirically distinct. This step was important

to ensure that the Technology Integration, Trust, and Public Satisfaction measures did not overlap but instead captured unique aspects of citizen perceptions.

The structural model was then evaluated to test the study's hypotheses. Figure 2 presents the structural model results, including path coefficients and significance levels.

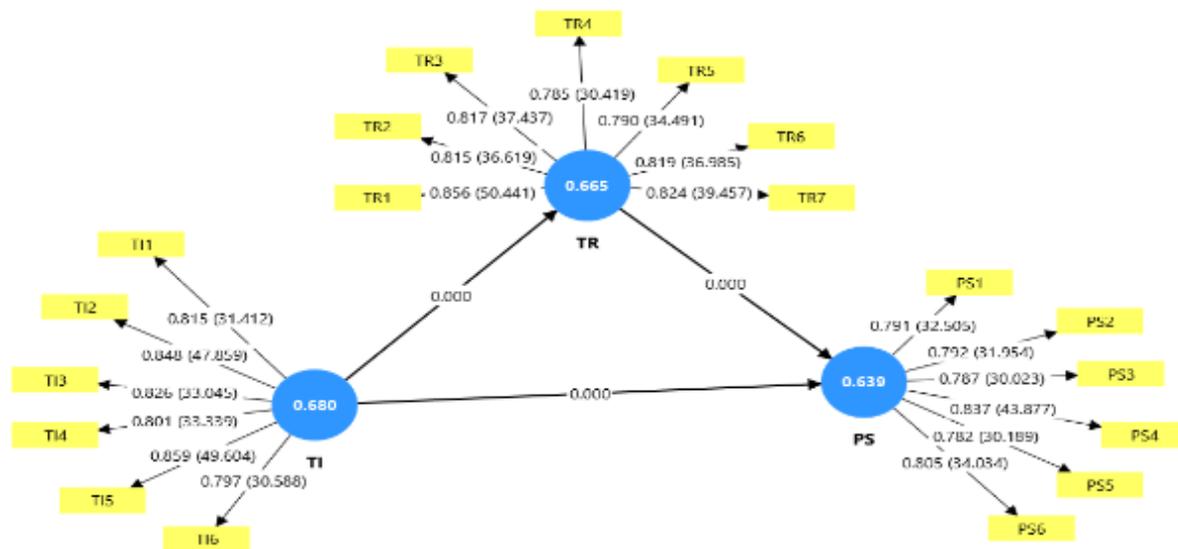


Figure 2. Structural Model Results

The results revealed several significant relationships. Technology Integration positively and significantly affected Public Satisfaction ($\beta = 0.283$, $t = 7.760$, $p < 0.001$), supporting H1. This finding indicates that citizens who perceive policing technologies as practical and accessible are more likely to express satisfaction with police services. Technology Integration also significantly affected Trust ($\beta = 0.316$, $p < 0.001$), suggesting that digital platforms help build confidence in the police by signalling modernisation and responsiveness. Trust, in turn, strongly predicted Public Satisfaction ($\beta = 0.294$, $p < 0.001$), reinforcing the importance of institutional trust in shaping citizen evaluations of policing.

The mediating role of Trust was assessed by examining the indirect effect of Technology Integration on Public Satisfaction through Trust. As shown in Table 2, the indirect effect was significant ($\beta = 0.093$, $t = 3.892$, $p < 0.001$), confirming H2. The results demonstrate partial mediation since both direct and indirect paths were significant. That means technology integration enhances satisfaction directly and indirectly by building trust, further strengthening satisfaction.

Table 2

Mediation Analysis Results

| Path | Indirect Effect (β) | t-value | p-value | Mediation Type |
|--------------------------------------|-----------------------------|---------|---------|-------------------|
| TI \rightarrow TR \rightarrow PS | 0.093 | 3.892 | 0.000 | Partial mediation |

Model fit and predictive power were also evaluated. Technology Integration explained 10% of the variance in Trust ($R^2 = 0.10$), while Technology Integration and Trust together explained 32% of the variance in Public Satisfaction ($R^2 = 0.32$). According to the guidelines by Hair et al.

(2019), these values represent moderate explanatory power. Effect size (f^2) analysis further indicated that Technology Integration had a medium effect on Public Satisfaction ($f^2 = 0.15$) and a small effect on Trust ($f^2 = 0.08$), while Trust had a medium effect on Public Satisfaction ($f^2 = 0.12$). Predictive relevance (Q^2) values were also greater than zero for all constructs, confirming that the model had satisfactory predictive validity.

Interpreting the descriptive results alongside the structural findings provides additional insights. The relatively high mean scores for Technology Integration items suggest that citizens recognised the usefulness of digital policing initiatives. For example, the highest-rated items related to the accessibility and responsiveness of online systems reflect appreciation for reforms that reduce bureaucratic barriers. At the same time, Trust items were rated slightly lower, indicating that while technology contributes to confidence, broader concerns about integrity and accountability remain. It helps explain the partial mediation observed: technology can improve satisfaction directly, but its effectiveness is limited when levels of trust are only moderate.

The structural results also underscore the relational dimension of satisfaction. Although Technology Integration directly improves Public Satisfaction, the more substantial effect of Trust suggests that satisfaction is more deeply influenced by perceptions of fairness, transparency, and integrity than by efficiency alone. This finding aligns with Institutional Trust Theory, which posits that legitimacy rests not only on functional performance but also on the belief that institutions act in citizens' best interests (Sunshine & Tyler, 2003; Tyler, 1990).

Taken together, the results provide robust support for both hypotheses. The analysis confirms that Technology Integration significantly predicts Public Satisfaction and that Trust partially mediates this relationship. The findings highlight that while digital platforms are valued for their efficiency and accessibility, their impact on satisfaction is magnified when citizens believe that the police are trustworthy.

Discussion

This study examined the influence of technology integration on public satisfaction with police services in Malaysia, with trust positioned as a mediating variable. Two central findings emerged from survey data analysed through PLS-SEM. First, technology integration significantly predicted public satisfaction, confirming that digital policing reforms enhance citizen evaluations of police services. Second, trust partially mediated this relationship, highlighting that technology's impact on satisfaction is amplified when strong perceptions of fairness, transparency, and accountability accompany it.

The discussion proceeds by interpreting these findings concerning prior research and theoretical frameworks, comparing them with Western and Asian contexts, and considering their theoretical, practical, and policy implications.

Technology Integration and Public Satisfaction

The first significant finding confirms that technology integration significantly enhances satisfaction with policing. This finding is consistent with the Technology Acceptance Model (TAM), which emphasises perceived usefulness and alleged ease of use as key determinants of technology adoption (Davis, 1989; Venkatesh et al., 2003). In this study, respondents

reported that online reporting systems, mobile applications, and digital platforms made interactions with the police easier and more efficient.

Similar patterns have been observed in other contexts. Ekaabi et al., (2020a) found that digital service platforms improved satisfaction in the United Arab Emirates when citizens perceived them as efficient and user-friendly. Jonathan-Zamir et al. (2024) demonstrated that body-worn cameras in Israel were associated with higher citizen confidence when viewed as beneficial for accountability. The present study adds to this body of evidence by demonstrating that Malaysian citizens similarly evaluate policing innovations positively when they deliver functional benefits.

However, it is also clear that technology's impact on satisfaction is not solely a matter of efficiency. While digital reforms reduce barriers and increase responsiveness, satisfaction reflects relational dimensions such as fairness, respect, and legitimacy (Sunshine & Tyler, 2003). This result leads directly to the mediating role of trust.

The Mediating Role of Trust

The second significant finding is that trust partially mediates the relationship between technology integration and satisfaction. This finding underscores the relevance of Institutional Trust Theory, which highlights that citizen evaluations are shaped by perceptions of competence, transparency, and fairness (Sunshine & Tyler, 2003; Tyler, 1990).

The Malaysian results illustrate this dynamic. While respondents acknowledged the usefulness of digital policing platforms, their levels of trust in the police were moderate. This result explains why the mediation was partial: technology improved satisfaction directly, but its effect was more potent when it also fostered confidence in the integrity of policing institutions. In other words, technology is a facilitator of satisfaction, but trust is the foundation upon which satisfaction is built.

This finding resonates with prior research. Elphick et al. (2021) argue that technological reforms may undermine satisfaction when perceived as surveillance tools rather than service improvements. Conversely, Reisig and Trinkner (2024) emphasise that when trust is present, citizens interpret technology as a signal of modernisation and accountability, reinforcing satisfaction. In Malaysia, concerns about transparency and accountability mean technology cannot automatically generate satisfaction; visible trust-building measures must accompany it (Hassan & Abdullah, 2017).

Comparative Perspectives

Comparisons with Western and Asian contexts further highlight the significance of trust. In Western democracies, digital policing is often framed as an accountability mechanism. Body-worn cameras in the United States and the United Kingdom have been linked to improved satisfaction when used transparently to document encounters (Li, 2024). Predictive policing technologies have also been received positively when safeguards against bias are implemented (Jonathan-Zamir et al., 2024).

In Asia, outcomes have been more mixed. In Singapore, high levels of institutional trust have amplified the positive effects of digital policing platforms (Woods et al., 2025). By contrast,

China's extensive use of artificial intelligence and surveillance technologies has generated efficiency gains and raised significant concerns about privacy and legitimacy (Li, 2024). India illustrates a middle ground, where mobile policing applications have improved accessibility, but their impact varies depending on citizens' confidence in institutional fairness (Murphy, 2025).

Malaysia's case falls between these experiences. Like Singapore, it has sought to modernise policing as part of a broader governance reform agenda. However, like India and China, it faces challenges of institutional legitimacy. The partial mediation observed in this study reflects this context: technology reforms are valued, but their full potential is only realised when accompanied by trust.

Theoretical Implications

The findings of this study extend theory in several ways. First, they reinforce the applicability of TAM beyond consumer and organisational settings to the domain of policing. Citizens evaluate policing technologies in much the same way as other technologies: through perceptions of usefulness and ease of use.

Second, the study demonstrates the value of integrating TAM with Institutional Trust Theory. While TAM explains the functional benefits of technology, it does not account for the institutional context in which technologies are deployed. This study provides empirical support for a more holistic framework that combines functional and institutional perspectives by showing that trust mediates the relationship between technology and satisfaction.

Third, the study contributes to the under-researched literature on policing in non-Western contexts. Much of the scholarship on technology, trust, and legitimacy originates from Western democracies. By providing evidence from Malaysia, this study shows that while theoretical insights from TAM and Institutional Trust Theory are globally relevant, their dynamics vary according to cultural and institutional contexts.

Practical and Policy Implications

The practical lessons from this study are significant for police organisations. While technology integration improves satisfaction, its effectiveness depends on how much it builds trust. That means the police leaders should not treat digital platforms merely as technical upgrades but as tools for enhancing legitimacy.

It also requires ensuring that digital systems are user-friendly and designed around citizens' needs. For example, online reporting portals must be simple to navigate, mobile applications must provide timely updates, and feedback systems must be responsive. Police officers must also be trained to use technology effectively and interact with citizens in ways that foster confidence. Transparency in communication is equally critical; citizens must understand how and why technologies are used, and reassurances must be provided that their rights and privacy are respected.

At the policy level, the findings suggest that investments in technology must be accompanied by measures that protect accountability and transparency. Without such safeguards, digital reforms risk being perceived as instruments of control rather than service improvement.

Policymakers should therefore consider establishing independent oversight bodies to monitor the use of digital tools, implementing robust data protection frameworks, and involving communities in the design of reforms.

Malaysia's experience offers lessons for other Asian countries. The results suggest that technology alone cannot secure satisfaction or legitimacy; it must be embedded in an environment of trust. Policymakers across the region should therefore prioritise trust-building initiatives alongside digitalisation programmes.

Summary

Overall, this study demonstrates that technology integration improves satisfaction with policing directly and indirectly through trust. The partial mediation observed underscores that trust is not an optional add-on but a critical determinant of how citizens evaluate digital reforms. Theoretically, the study extends TAM by incorporating trust as a mediating factor, offering a more comprehensive satisfaction account. Practically, it highlights the need for citizen-centred design, officer training, and transparent communication. From a policy perspective, it stresses the importance of oversight and accountability mechanisms.

By situating Malaysia within the broader global literature, the study shows that while digital policing reforms have universal potential, their success ultimately depends on the institutional trust underpinning them. This insight is vital for Malaysia and other societies navigating the challenges of digital transformation in policing.

Conclusion

This study examined the effects of technology integration on public satisfaction with policing in Malaysia, with trust positioned as a mediating factor. The findings make three significant contributions based on data from 417 respondents in Klang Valley, which were analysed using PLS-SEM. First, technology integration directly affected public satisfaction, indicating citizens value digital reforms such as online reporting systems and mobile applications for efficiency and accessibility. Second, technology integration significantly predicted trust, suggesting that visible investments in modernisation can help build citizen confidence in policing institutions. Third, trust partially mediated the relationship between technology and satisfaction, highlighting that digital innovations enhance satisfaction most effectively when accompanied by perceptions of fairness, transparency, and integrity.

The results underscore the relevance of combining the Technology Acceptance Model (TAM) with Institutional Trust Theory in explaining citizen evaluations of digital policing. While TAM accounts for the functional benefits of technology, this study demonstrates that such benefits do not automatically translate into satisfaction unless supported by institutional trust. The findings, therefore, extend theoretical understanding by providing evidence from a non-Western context where legitimacy concerns remain central.

From a practical standpoint, the study shows that technology integration should not be treated merely as a technical upgrade. Police organisations must ensure that digital platforms are designed around citizen needs, are easy to use, and provide timely and meaningful feedback. Officers must also be trained to use these tools in ways that build rather than

undermine trust. Transparency is crucial; citizens must understand how technologies are employed and how they safeguard, rather than compromise, rights and privacy.

The policy implications are equally clear. For Malaysia, the findings suggest that digital reforms under the Government Transformation Programme can enhance public satisfaction, but only if embedded within broader trust-building measures. Technological investments must accompany oversight, accountability mechanisms, and robust data protection frameworks. Involving communities in designing and evaluating digital initiatives can strengthen legitimacy by ensuring that reforms reflect public expectations rather than institutional convenience. More broadly, the Malaysian case illustrates that while digitalisation offers substantial opportunities, its success in policing ultimately depends on institutional trust. This lesson is highly relevant for other Asian societies navigating similar challenges of modernisation and legitimacy.

The study also points to several avenues for future research. While convenience sampling and online distribution via social media provided valuable access to respondents, the approach limits generalisability. Future studies could adopt probability-based sampling or focus on specific communities to capture more representative patterns of perception. Longitudinal designs would also help examine whether the positive effects of technology on satisfaction and trust are sustained over time or vary according to the maturity of reforms. Finally, comparative research across different regions of Malaysia, or between Malaysia and other Asian countries, would offer more profound insights into how institutional and cultural factors shape the nexus between technology, trust, and satisfaction.

In conclusion, this study demonstrates that technology integration plays a crucial role in shaping public satisfaction with policing in Malaysia, but its impact is magnified when mediated by trust. Digital platforms improve satisfaction by making policing more accessible and efficient, yet trust determines whether these reforms are perceived as legitimate and meaningful. The findings emphasise that technology and trust must be advanced together for practitioners. For policymakers, they highlight the need to embed digital reforms within frameworks of accountability and community engagement. Scholars extend theoretical understanding by integrating TAM with Institutional Trust Theory and providing empirical evidence from a non-Western setting. Collectively, these contributions reinforce that while technology can modernise policing, trust is the foundation upon which public satisfaction ultimately rests.

Theoretical and Contextual Contribution

This research offers theoretical and contextual contributions that advance knowledge on digital policing and public satisfaction. Theoretically, the study extends the Technology Acceptance Model (TAM) by integrating it with Institutional Trust Theory, thereby providing a more holistic explanation of how technological reforms influence public satisfaction in the policing context. While TAM traditionally emphasises functional perceptions such as usefulness and ease of use, this research demonstrates that institutional trust plays a pivotal role in translating these functional benefits into positive satisfaction outcomes. The study enriches the understanding of technology adoption in public sector organisations where legitimacy and accountability are central to citizen evaluations. Contextually, the study makes an important contribution by situating this integrated model within the Malaysian policing

environment—an area underrepresented in the literature compared to Western democracies. By empirically validating the mediating role of trust in the Malaysian context, the study provides regionally grounded insights into how digital reforms interact with cultural, institutional, and governance dynamics. Consequently, the findings extend theoretical frameworks to non-Western settings and offer a contextualised understanding of how trust and technology integration jointly shape satisfaction in developing and transitional governance systems.

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References

- Abdullah, J., Zanudin, K., & Marzukhi, M. A. (2022). Twelfth Malaysia Plan: Prospective impacts on urban and regional development. *Planning Malaysia*, 20(23). <https://doi.org/10.21837/pm.v20i23.1170>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Ekaabi, M., Khalid, K., Davidson, R., Kamarudin, A., & Preece, C. (2020a). Smart policing service quality: Conceptualisation, development and validation. *Policing: An International Journal*, 43(5), 707–721. <https://doi.org/10.1108/PIJPSM-03-2020-0038>
- Ekaabi, M., Khalid, K., & Davidson, R. (2020b). The service quality and satisfaction of smart policing in the UAE. *Cogent Business & Management*, 7(1), 1751904. <https://doi.org/10.1080/23311975.2020.1751904>
- Elphick, C., Philpot, R., Zhang, M., Stuart, A., Walkington, Z., Frumkin, L. A., Pike, G., Gardner, K., Lacey, M., Levine, M., Price, B., Bandara, A., & Nuseibeh, B. (2021). Building trust in digital policing: A scoping review of community policing apps. *Police Practice and Research*, 22(5), 1469–1491. <https://doi.org/10.1080/15614263.2020.1861449>
- Faizal Mohamad Ali, Mohamad Hairul & Ahamat, Amiruddin (2025). Transformational and Innovative Leadership in the Royal Malaysia Police (RMP): A Path Toward Modern Policing. *International Journal of Research and Innovation in Social Science (IJRISS)*, 9(09), 4410-4421. <https://doi.org/https://dx.doi.org/10.47772/IJRISS.2025.909000361>
- Hair, J. F., Babin, B. J., Anderson, R. E., & Black, W. C. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R* (Classroom Companion: Business). Springer International Publishing.

- Hassan, M. M., & Abdullah, A. (2017). The evolution of community-oriented policing (COP): Community perception and expectation on community-oriented policing (COP) development & implementation in Malaysia. *International Journal of Scientific and Research Publications*, 7(8), 418–426. <https://www.researchgate.net/publication/353366549>
- Hassan, M. M., & Abdullah, A. (2018). The barriers and ideas of improvement to community-oriented policing (COP) development and implementation in Malaysia: Case study—Pulau Pinang, Malaysia. *International Journal of Social Sciences and Humanities Invention*, 5(5), 4720–4727. <https://doi.org/10.18535/ijsshi/v5i5.12>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Jonathan-Zamir, T., Perry, G., Kaplan-Damary, N., & Weisburd, D. (2024). Police compliance with the social contract as an antecedent of police legitimacy, of satisfaction with the police, and of willingness to obey: Findings from a two-stage vignette experiment. *Journal of Experimental Criminology*. <https://doi.org/10.1007/s11292-024-09622-z>
- Li, R. G. (2024). Institutional trustworthiness on public attitudes toward facial recognition technology: Evidence from U.S. policing. *Government Information Quarterly*, 41(3), 101941. <https://doi.org/10.1016/j.giq.2024.101941>
- Murphy, K. (2025). Policing conspiracy theorists: The importance of procedural justice policing and trust. *Policing: An International Journal*, 48(2), 336–353. <https://doi.org/10.1108/PIJPSM-09-2024-0154>
- Peterson, R. A. (1994). A meta-analysis of Cronbach's coefficient alpha. *Journal of Consumer Research*, 21(2), 381–391. <https://doi.org/10.1086/209405>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Reisig, M. D., & Trinkner, R. (2024). Distinguishing between normative and non-normative motivations to obey the police: Furthering the development of a police legitimacy scale. *Policing: An International Journal*, 47(1), 50–65. <https://doi.org/10.1108/PIJPSM-05-2023-0069>
- Sekaran, U., & Bougie, R. (2019). *Research methods for business: A skill building approach* (8th ed.). John Wiley & Sons.
- Siddiquee, N. (2014). Malaysia's government transformation programme: A preliminary assessment. *Intellectual Discourse*, 22(1), 7–31.
- Siddiquee, N. A. (2022). Breaking down silos and fostering inter-agency collaboration: Malaysia's national blue ocean strategy in perspective. In *[Edited volume title not specified]* (pp. 223–240).
- Skogan, W. G. (2009). Concern about crime and confidence in the police. *Police Quarterly*, 12(3), 301–318. <https://doi.org/10.1177/1098611109339893>
- Sunshine, J., & Tyler, T. R. (2003). The role of procedural justice and legitimacy in shaping public support for policing. *Law & Society Review*, 37(3), 513–548. <https://www.jstor.org/stable/1555077>
- Tyler, T. R. (1990). Procedural justice, legitimacy, and compliance. In *Why people obey the law* (pp. 1–6). Yale University Press.

- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478. <https://doi.org/10.2307/30036540>
- Woods, O., Lim, A., & Kong, L. (2025). Sedimented surveillance in Southeast Asia's "smart" city-state: The case of Singapore. In *Handbook on cities and crime* (pp. 468–482). Edward Elgar Publishing.
- Yahya, A. H., Khamis, K. A., & Zakaria, Z. (2024). The integrity of the Royal Malaysian Police: A thematic analysis. *International Journal of Research and Innovation in Social Science*, 8(8), 4730–4743. <https://doi.org/10.47772/IJRISS.2024.8080360>
- Yesberg, J. A., Sargeant, E., Fenn, L., Murphy, K., & Madon, N. (2024). Fairness in policing: How does internal procedural justice translate to external procedural justice? *Policing: A Journal of Policy and Practice*, 18. <https://doi.org/10.1093/police/paae126>
- Zolkepli, F. (2024, August 1). Body worn cameras: A new era of transparency in law enforcement, says Lam Thye. *The Star*. <https://www.thestar.com.my>