

## Budget Efficiency and Service Effectiveness in CRM Digitalization: A Study of Satpol PP DKI Jakarta

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### ABSTRACT

Digital transformation through the Citizen Relationship Management (CRM) system has significantly streamlined the administrative handling of public complaints within the Jakarta Provincial Civil Service Police Unit (Satpol PP). However, a high rate of recurring violations at the same locations indicates that administrative completion—marking a report as "resolved" in the system—does not always lead to the substantive resolution of problems in the field. This study examines CRM digitalization from the perspective of public service budget efficiency and effectiveness to determine how digital governance can better support long-term urban order. Using an exploratory qualitative approach and thematic analysis via NVivo software, the research identifies an "efficiency paradox". While Satpol PP achieves a high administrative resolution rate of 93.03%, budget inefficiencies persist because the current system is primarily reactive. Operational resources are frequently wasted on the repetitive deployment of personnel and vehicles to address identical, chronic violations that the system fails to mitigate through early detection. The study concludes that current digitalization remains at an administrative layer and must transform into a mitigative approach. As a primary scientific contribution, the research formulates the CRM-Mitigation Layer model. This model integrates predictive analytics and cross-agency coordination to shift the organization from reactive enforcement to proactive, data-driven budgeting. By focusing on early-warning mitigation and resolving the root causes of incidents, this model enhances public value by ensuring state resources are used for sustainable problem-solving rather than repetitive administrative tasks.

### ABSTRAK

Transformasi digital melalui sistem Manajemen Hubungan Warga (CRM) telah secara signifikan mempermudah penanganan administratif pengaduan masyarakat di Satuan Polisi Pamong Praja (Satpol PP) Provinsi Jakarta. Namun, tingginya tingkat pelanggaran berulang di lokasi yang sama menunjukkan bahwa penyelesaian administratif—dengan menandai laporan sebagai "telah diselesaikan" dalam sistem—tidak selalu berujung pada penyelesaian substansial masalah di lapangan. Studi ini mengkaji digitalisasi CRM dari perspektif efisiensi dan efektivitas anggaran layanan publik untuk menentukan bagaimana tata kelola digital dapat lebih mendukung ketertiban perkotaan jangka panjang. Dengan menggunakan pendekatan kualitatif eksploratif dan analisis tematik melalui perangkat lunak NVivo, penelitian ini mengidentifikasi "paradoks efisiensi". Meskipun Satpol PP mencapai tingkat penyelesaian administratif yang tinggi sebesar 93,03%, inefisiensi anggaran tetap ada karena sistem saat ini bersifat reaktif. Sumber daya operasional sering terbuang percuma akibat penugasan berulang personel dan kendaraan untuk menangani pelanggaran yang sama dan kronis, yang gagal diatasi oleh sistem melalui

deteksi dini. Studi ini menyimpulkan bahwa digitalisasi saat ini masih berada pada lapisan administratif dan harus bertransformasi menjadi pendekatan mitigatif. Sebagai kontribusi ilmiah utama, penelitian ini merumuskan model CRM-Mitigation Layer. Model ini mengintegrasikan analisis prediktif dan koordinasi lintas lembaga untuk mengarahkan organisasi dari penegakan hukum yang reaktif menuju penganggaran yang proaktif dan didasarkan pada data. Dengan berfokus pada mitigasi berbasis peringatan dini dan penyelesaian akar permasalahan insiden, model ini meningkatkan nilai bagi masyarakat dengan memastikan bahwa sumber daya negara digunakan untuk pemecahan masalah yang berkelanjutan, bukan untuk tugas-tugas administratif yang berulang.

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## A. INTRODUCTION

Digital transformation is no longer understood merely as a shift from manual to electronic processes, but rather as a fundamental institutional shift involving business processes, decision-making logic, and the efficiency of state resource allocation. In the contemporary discourse on digital government, technology serves as a strategic instrument for creating public value, specifically through the improvement of administrative efficiency and service effectiveness (Janssen et al., 2025). However, a critical challenge arises when digitalization becomes a superficial layer over existing bureaucracy without being accompanied by a reorganization of strategy and measurable financial support (Buyannemekh et al., 2024). This challenge is acutely evident in the management of public order and community protection (Trantibumlinmas) by the Jakarta Provincial Civil Service Police Unit (Satpol PP), where the adoption of a Citizen Relationship Management (CRM) system has transformed complaint management but must now demonstrate its capacity to ensure substantive public service budget efficiency in the face of complex, recurring urban violations (Gong & Yang, 2024).

Within the Indonesian local governance framework, matters of public peace, public order, and Trantibumlinmas are categorized as mandatory basic services that directly impact the daily lives of residents (Undang-Undang (UU) Nomor 23 Tahun 2014 tentang Pemerintahan Daerah, 2014). As the primary agency responsible for these services, the Jakarta Provincial Satpol PP is tasked with enforcing local regulations and maintaining urban order (Gunawan, 2024). This institution serves as a critical case study for evaluating budget efficiency and service effectiveness due to the extreme urban complexity it manages, evidenced by a volume of public complaints exceeding 30,000 reports annually. In a densely populated metropolitan area with specialized administrative status, the broad mandate of Satpol PP requires a sophisticated balance between operational expenditures and substantive field results. The current prevalence of recurring violations at chronic locations highlights a significant gap where reactive enforcement leads to budget waste, making Satpol PP a vital focal point for research into how digital governance can optimize the allocation of limited state resources (Undang-Undang (UU) Nomor 2 Tahun 2024 Tentang Provinsi Daerah Khusus Jakarta, 2024).

The Jakarta Provincial Government has adopted a Citizen Relationship Management (CRM) system integrated with the JAKI app as the primary channel for public complaints (Indrajit, 2002). The digitization of complaints via CRM is directly connected to budget efficiency by minimizing "bureaucratic transaction costs" and "waiting costs" that typically arise from manual administrative processes. In operational practice, this efficiency is achieved through an automated "digital by design" workflow. For instance, rather than relying on manual reporting and physical coordination meetings to assign tasks, the CRM system utilizes geotagging and automatic classification to route reports instantly to the specific sub-district (Kelurahan) or technical unit responsible for the violation. This allows the Satpol PP to move from high-cost, random patrolling to evidence-based deployment, where personnel and vehicle resources are allocated only to locations with verified, data-driven needs. Such integration aligns with the principles of the Electronic-Based Government System (SPBE), which emphasizes the use of

technology to ensure institutional integration and financial accountability (Peraturan Presiden (Perpres) Nomor 95 Tahun 2018 Tentang Sistem Pemerintahan Berbasis Elektronik, 2018).

Despite the initial successes of digital transformation, the implementation of the CRM system within Satpol PP DKI Jakarta continues to face critical challenges regarding budget effectiveness and substantive field resolution. Performance data from 2025 highlights the magnitude of this operational burden, with the agency managing a total of 30,508 public complaints throughout the year (Satpol PP DKI Jakarta, 2026). While administrative resolution rates remain high, the system is frequently undermined by recurring cases—repeated reports at the same chronic locations—which indicate that a "completed" status in the application does not necessarily equate to a permanent solution on the ground. Economically, this reactive and repetitive approach leads to significant budgetary inefficiencies, as fuel, personnel, and vehicle resources are deployed multiple times to address identical violations that the current system fails to mitigate.

Issues regarding effectiveness are also evident in the coordination mechanisms between local government agencies, which still frequently face obstacles such as the avoidance of institutional responsibility among agencies or administrative bottlenecks (Gunawan, 2025a). Although the digital system provides a case management feature, the substantive resolution of complex cases—such as permanent unauthorised structures or illegal utilities—takes a long time and incurs significant operational costs as it involves numerous technical agencies. The gap between the "completed" status in the application system and the reality on the ground, where matters remain unresolved, indicates that the digitisation of complaints has not yet fully ensured the effective use of public service budgets.

A strategic factor that directly determines the long-term success of digital transformation within the Satpol PP is the organization's financial capability (Gong & Yang, 2024). Rather than being a separate administrative concern, budget allocation is intrinsically linked to CRM implementation because it defines the boundary between a system that merely records reports and one that substantively resolves them. Without sustained budgetary investment that reaches the operational level—covering digital infrastructure maintenance, field equipment, and the enhancement of digital human resource capacity—the CRM system remains "robust at the central administrative level but weak in field execution". This financial disconnect is a primary cause of the "efficiency paradox," where the system succeeds in the low-cost task of closing administrative tickets but fails in the high-cost task of providing permanent solutions in the field. Consequently, the success of CRM-based service delivery depends on a strategic shift in budget priorities: moving away from reactive spending on repetitive patrols and toward investing in analytical functions that transform complaint data into proactive mitigation.

The significance of this research is rooted in a critical research gap: while digital tools are effectively used for recording public complaints, there remains a lack of integrated models that function as early-warning mitigation mechanisms. Without a model designed for early detection and the geospatial mapping of vulnerable areas, institutions continue to rely on a reactive budgetary cycle that fails to address the root causes of recurring public order disturbances. Therefore, there is a clear scholarly and practical need to explore how digitalization can transcend simple administrative record-keeping to provide data-driven strategies that ensure substantive effectiveness and sustainable urban order (OECD, 2020).

The primary objective of this research is to analyze the implementation of CRM digitalization at Satpol PP DKI Jakarta through the lens of public service budget efficiency and effectiveness. To achieve this, the study identifies strategic factors for budget optimization and formulates an adaptive, preventive digitalization model. By doing so, the research provides a framework to minimize reactive inefficiencies and strengthen the quality of public protection through more integrated, data-driven governance.

## B. LITERATURE REVIEW

To ensure that this study possesses a level of novelty and originality that is academically sound, the researcher first conducted a thorough review of various previous studies relevant to the topic under investigation. The results of this review indicate that there are indeed a number of studies with similarities in certain thematic aspects; however, each has been developed using different approaches, focuses and variables.

The first is Yiwei Gong and Xinyi Yang (2024). Yiwei Gong's research findings indicate that strategic factors (exploration, concentration, and complementation) do not operate in isolation, but rather in specific combinations or configurations; consequently, governments need to adapt their digital strategies in line with the stage of transformation they are currently facing. This research is crucial as it addresses strategic factors in digital government transformation, where one of the key factors is financial capability. Their findings confirm that digitalisation performance is influenced by a combination of strategic factors, including financial support.

Secondly, there is Jean Damascene Twizeyimana and Annika Andersson (2019). Twizeyimana emphasises that the public value perspective is crucial to the implementation and success of e-government; it is therefore relevant to highlight that the digital transformation of government should not be assessed solely on the basis of administrative efficiency, but also on its ability to deliver better public services, enhance public trust, and create broader social value. This is relevant for analysing how the digitalisation of CRM can reduce waste of resources and optimise budget utilisation.

There are other studies such as that by Inkreswari Retno Hardini, Reisa Siva Nandika, Hamdi, and Syora Alya Eka Putri (2024). This seminal study emphasises that the management of public complaints is not merely an administrative tool, but also part of open government practices that strengthen transparency, accountability, citizen participation, and local government responsiveness to community needs. This research has a high degree of relevance as it specifically addresses the management of public complaints within the Jakarta Provincial Government through a CRM system. The results indicate that system integration aids in identifying public service issues, enabling the government to take more responsive and accountable corrective measures.

Furthermore, research was also conducted by Dhia Khalila Rinjany (2020). Rinjany emphasised that the adoption of e-government cannot be explained solely by technological readiness or by the acceptance of technology in isolation; rather, it must be understood simultaneously through a combination of TRI and UTAUT, thereby demonstrating that the success of government digital services is also determined by citizens' readiness and user behavioural factors. This study is important for assessing the extent to which the public's technological readiness influences the utilisation of the system, which ultimately impacts the effectiveness of the budget allocated to that system.

Finally, there is the research by I Made Yudhiantara (2019). This dissertation emphasises that the transformation of e-government towards e-governance in public services is not automatically achieved merely through the digitisation of services, as the shift towards a citizen-centred orientation still faces obstacles such as low levels of e-participation, limitations in ICT infrastructure, and the suboptimal involvement of community information networks. This review supports the view that digitalisation is not merely the modernisation of tools, but a change in operational practices towards more efficient and citizen-oriented service management.

The novelty of this research is established through a critical review of previous studies. The results of this comparison indicate that previous studies have indeed extensively addressed government digitalisation, e-government, digital transformation, public complaint management, the quality of digital services, and open government. Nevertheless, these studies generally still place digital systems within the context of public service, complaint management, technology adoption, or user perception. There has been little research that specifically positions the efficiency and effectiveness of government digitalisation as a substantive governance mechanism in the management of public safety, public order, and community protection—as mandatory government affairs related to basic services.

### **C. RESEARCH METHOD**

This study employs a qualitative, exploratory approach using the case study method within Satpol PP DKI Jakarta. The choice of this method is based on the need to examine in depth the processes, meanings, patterns of coordination, and effectiveness of budget utilisation in the practice of public service digitalisation—aspects that cannot be measured solely through statistical indicators. The scope of the research is limited to the management of Trantibumlinmas through the CRM system during the empirical period from 2022 until the completion of this study in May 2026.

Research informants were selected using purposive sampling to identify subjects possessing strategic knowledge and authority regarding budget efficiency and system effectiveness. The group of informants consists of: (1) Key policy-makers (Head of the DKI Jakarta Satpol PP); (2) Structural officials in the fields of planning and performance; (3) Technical CRM administrators and data managers from Jakarta Smart City; (4) Field operational staff (Squad Commanders/Section Heads); and (5) Members of the public who have reported cases involving repeated incidents or cross-departmental coordination. The research materials include primary data in the form of interview transcripts and field notes, as well as secondary data in the form of the Satpol PP Performance Report (LKj) 2022–2025, regulations (Presidential Regulation on SPBE, Governor’s Regulation on Complaint Management), and a summary of digital complaint data.

Data collection was carried out using three main techniques:

1. In-depth interviews, using semi-structured interview guidelines to explore informants’ perceptions of the contribution of digitalisation to the efficiency of the operational budget and the resolution of issues in the field.
2. Guided observation, directly observing digital workflows at the command centre and their synchronisation with the deployment of field officers.
3. Documentation review, examining budget documents, Standard Operating Procedures (SOPs) for digital enforcement, and CRM monitoring and evaluation reports to identify gaps between administrative and substantive outcomes.

The data analysis technique follows an interactive model comprising the stages of data collection, data reduction, data presentation, and verification or drawing of conclusions. The reduction process was carried out using NVivo software to classify the data into analytical codes such as: budget distribution flows, the effectiveness of cross-departmental coordination, the handling of recurring cases, and early warning mitigation. The reduced data is then presented in the form of matrices and relationship diagrams between categories to identify the strategic factors determining the success of digitalisation.

Data validity is ensured through triangulation techniques, which include: (1) Source Triangulation, comparing statements between planning officials, field officers, and reporting citizens; (2) Technical Triangulation, cross-verifying interview results against performance report documents in the CRM system; and (3) Theoretical Triangulation, using the OECD Digital Government policy framework and Gong & Yang’s strategic factors to interpret field findings. With these technical details, the research procedure is repeatable to test the consistency of results across different locations or time periods.

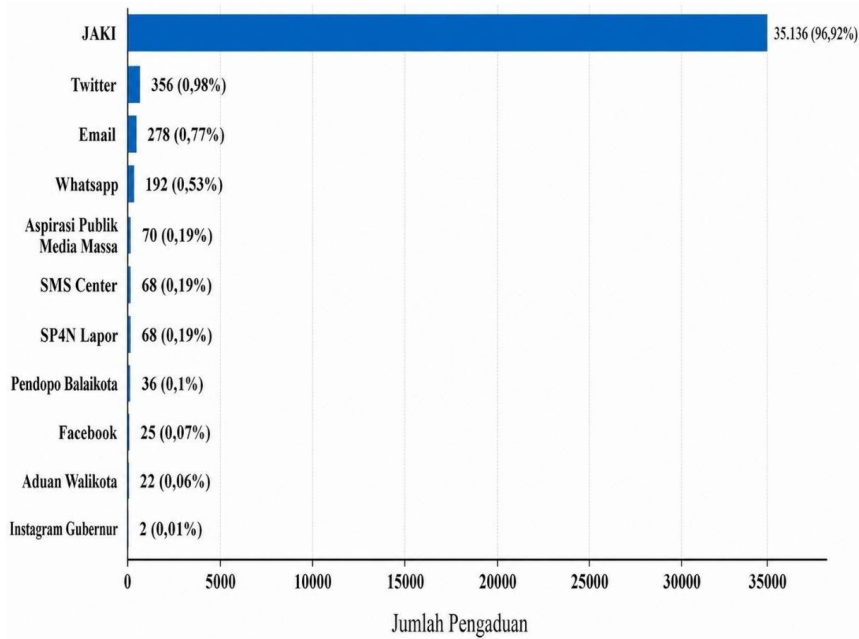
### **D. RESULT AND DISCUSSION**

#### **Implementation of CRM Digitalisation at Satpol PP DKI Jakarta**

The implementation of government digitalisation at the DKI Jakarta Provincial Satpol PP is not merely a shift in working methods from manual to electronic processes, but rather a transformation of the work culture towards the concept of Smart public order governance. Based on research findings, this digitalisation system has become institutionalised and deeply integrated into the organisational structure through a CRM ecosystem directly linked to the Jakarta Kini (JAKI) app as the primary channel for public reporting. This implementation aims to

create a more transparent, accountable, and responsive governance system for public order and community safety.

Performance data for 2025 indicates a very significant digital workload, with the Jakarta Provincial Satpol PP managing a total of 30,508 public complaints via the CRM system. Of these total reports, the JAKI channel dominated absolutely, contributing 28,849 reports or 94.56% (Gunawan, 2024). The high intensity of use of this digital channel demonstrates that the public has come to trust the JAKI-CRM system as the primary gateway for submitting complaints regarding public order disturbances (Fauzie et al., 2023).



**Figure 1. Distribution of Complaints by Complaint Channel at Satpol PP of Jakarta Capital City Public Order Agency in 2024**

Source: Compiled by researchers from various sources, 2026.

The digital workflow at Satpol PP DKI Jakarta has been systematically designed through several stages that are bound by bureaucratic procedures. The process begins with the receipt of reports via the JAKI app, which are then routed to the data consolidation centre at Jakarta Smart City (JSC) to be classified according to category, location and jurisdiction. Given that the majority of reports are location-based (geo-tagged), the system automatically integrates these complaints into the local sub-district (Kelurahan) account as the starting point for area-based handling before they are referred to the technical units of the Satpol PP if they concern the enforcement of local regulations. This technical workflow is presented in the following table:

**Table 1. Operational Workflow for the CRM/JAKI Digital Complaints System**

No.	Stage	Action Description	Main Actor
1	Input	Residents report via JAKI/Official channels	Citizens/Community
2	Classification	Category, location, and authority verification	JSC/CRM Admin
3	Disposition	Task distribution to regional/department accounts	CRM System
4	Execution	Field follow-up and evidence upload	Satpol PP Officers
5	Validation	Verification of follow-up result compliance	Bureau of Governance
6	Completion	Report status changes to green (Complete)	System/Validator

Source: Compiled from research findings, 2026.

One of the key features of this digitalisation initiative is the status tracking system, which enables real-time progress monitoring. The system categorises report statuses into three main colour-coded categories: Wait (Red) for new reports, Process (Yellow/Purple) for reports currently being processed, and Complete (Green) for reports that have been fully validated. Every field officer is required to document using an integrated camera that locks data based on a

timestamp and geotagging at the complaint location to ensure the authenticity and accountability of the handling.

Scientific interpretation of these findings indicates that the ‘digital by design’ model implemented aims to minimise inefficiencies caused by manual bureaucracy and clarify the institutional chain of responsibility (Harliantara & Wahyuanto, 2025). The integration of central and regional data via CRM enables Satpol PP leadership to deploy personnel in a more strategic and evidence-based manner rather than randomly (Peraturan Gubernur Nomor 49 Tahun 2024 Tentang Pengelolaan Pengaduan DiLingkungan Pemerintah Provinsi Daerah Khusus Ibukota Jakarta, 2024). The use of coordinate and timestamp technology serves as an administrative control mechanism to minimise the potential for manipulation of follow-up reports by rogue officers in the field.

The results of this study are consistent with the findings of Twizeyimana and Andersson (2019), who state that one dimension of the public value of e-government is increased administrative efficiency. However, there is a striking difference in findings regarding substantive effectiveness. Although the digital system has achieved an average administrative resolution rate of 93.03% in 2025, the reality on the ground reveals a significant gap (Satpol PP DKI Jakarta, 2026). Many complaints—particularly cases involving unauthorised street vendors (PKL) and illegal structures—are marked as “Resolved” in the application, yet the issues resurface shortly thereafter (repetitive cases).

This phenomenon demonstrates the limitations of administrative digitalisation. The current CRM system is highly effective at recording and channelling information, but it has not yet fully succeeded in altering the behaviour patterns of offenders or providing permanent solutions, as coordination across local government agencies often remains sequential and slow. This indicates that to achieve effective public service budgeting, digitalisation must not stop at the “Resolved” status on the application screen, but must be reinforced with post-action monitoring mechanisms and early detection of recurring cases through more proactive analytical integration.

### **Budget Efficiency Analysis**

An analysis of budgetary efficiency in the implementation of Trantibumlinmas by the DKI Jakarta Provincial Satpol PP has revealed a paradox between administrative efficiency within the bureaucracy and the operational burden on the ground. In theory, digital transformation aims to enhance public value by reducing the costs of bureaucratic transactions (Karkin & Cezar, 2024). The research findings indicate that the use of a CRM system has successfully reduced coordination costs between local government agencies, shifting from a manual process to a centralised system on a single data platform. However, this efficiency at the central level faces a major challenge in the form of operational budget inefficiencies resulting from reactive and substantively incomplete problem-handling in the field.

Performance data for 2025 records that the Jakarta Provincial Satpol PP managed a total of 30,508 public complaints (Gunawan, 2025a). The concentration of reports on the JAKI channel at 94.56% resulted in significant savings in coordination costs, as the system automatically classifies reports based on category, location, and the authority of local government agencies (Gunawan, 2025a). The speed of this system is reflected in the Satpol PP’s ability to follow up on 88.33% of reports (26,948 complaints) within less than seven days (Satpol PP DKI Jakarta, 2026). Administratively, this acceleration of the information flow reduces bureaucratic ‘waiting costs’, but these savings are eroded by the cost of repeatedly deploying personnel for chronic cases.

A scientific interpretation of these findings suggests that Satpol PP DKI Jakarta has currently only reached the stage of ‘Administrative Digitalisation’. At this stage, budgetary efficiency is measured by the completion of a report ticket on the application screen. However, this efficiency is illusory when cases of unauthorised street vendors or illegal structures are marked as ‘Resolved’ based solely on documentation of a warning or a temporary eviction. This inefficiency arises because, without a permanent solution (such as relocation or physical restructuring), the violations reappear in the same location, forcing the organisation to deploy patrol fleets and personnel repeatedly for identical issues.

**Table 2. Comparison of Administrative Efficiency vs. Field Operational Costs (2025)**

Analysis Dimension	Administrative Indicators (Digital)	Efficiency Impact	Operational Reality (Field)	Budget Impact
<b>Task Distribution</b>	Automatic CRM Classification	High (Time & Stationery Savings)	Handling repetitive cases >5 times at the same spot	Inefficiency (Fuel/Personnel waste)
<b>Data Verification</b>	JAKI Photo & Geotagging	High (Location Accuracy)	Chronic hotspots remain active post-action	Static Patrol Cost Burden
<b>Completion</b>	"Complete" Status (93.03%)	High (KPI Achievement)	Issues reappear within hours/days	Re-execution Costs
<b>Cross-Unit Coordination</b>	Digital Dept. Transfer Feature	Medium (Path Clarity)	Sectoral ego in complex cases (Buildings/Drainage)	Meeting Costs & Physical Delays

Source: Compiled from research findings, 2026.

Economically, the routine deployment of personnel to respond to new complaints regarding old issues constitutes a waste of operational budget. Reports indicate that public order violations have been reported more than five times at the same location because a permanent resolution has not yet been found. This is exacerbated by system mechanisms that do not automatically flag chronic location histories, meaning each new report is treated as a first-time case. Consequently, the operational costs of reactive patrols (responding to reports) are significantly higher than the investment costs for analytics-based preventive measures.

The findings of this study are consistent with the research by Twizeyimana and Andersson (2019), which states that administrative efficiency is a key dimension of the public value of e-government. However, there is a striking discrepancy in the findings regarding the Trantibumlinmas context in Jakarta, where digital efficiency at the upstream stage (reporting) does not automatically reduce cost burdens at the downstream stage (in the field). This supports the argument by Gong and Yang (2024) that an organisation's financial capability is determined not only by the size of its budget, but by its capacity for innovation in transforming data into actions capable of reducing long-term operational costs.

The failure to address these chronic cases also triggers additional coordination burdens that are time-consuming and costly. Reports regarding permanent unauthorised structures along riverbanks or pavements require a long time to resolve as they must go through inter-departmental coordination meetings and a persuasive approach. Inefficiencies arise when digital systems are used merely as tools for shifting workloads (serial ticketing) between agencies, rather than as platforms for orchestrating joint action (Marullah Matali, 2025). Consequently, the 'waiting costs' of coordination remain high for serious cases that have significant socio-economic impacts on the community.

As a recommendation, to optimise budget efficiency, Satpol PP DKI Jakarta requires a transition to a CRM-Mitigation Layer model. This model directs budget investment not only towards application maintenance, but also towards strengthening predictive analytics and integrating AI-powered CCTV for early detection. By detecting potential disturbances before they become public complaints, the Satpol PP can allocate the budget more strategically through data-driven patrols (evidence-based patrolling), which is theoretically far more cost-effective than large-scale reactive enforcement following an incident (Peraturan Gubernur (Pergub) Provinsi Daerah Khusus Ibukota Jakarta Nomor 41 Tahun 2025 Tentang Rencana Strategis Perangkat Daerah Tahun 2025-2029, 2025). This more substantive approach will break the cycle of recurring reports, allowing operational budgets to be redirected towards strengthening broader and more sustainable public protection functions.

### Analysis of Service Effectiveness

The effectiveness of public services in the digital transformation of government should not be measured solely by the availability of complaint channels or the speed of report distribution, but must be assessed by the system's ability to produce comprehensive and sustainable problem-solving (Janssen et al., 2025). Research findings on the Jakarta Provincial Satpol PP indicate that whilst administrative achievements through the CRM system are very high, there is a significant gap between the 'Resolved' status in the system and the reality of public order on the ground. The current effectiveness of services remains trapped within an administrative digitalisation paradigm that prioritises the closure of complaint tickets, yet has not addressed the root causes of chronic and systemic issues.

Based on 2025 performance data, the Satpol PP achieved a complaint resolution rate of 93.03% out of a total of 30,508 reports received (Gunawan, 2025a). However, this success rate is paradoxical when compared with field findings regarding the high frequency of repeat reports at the same locations. This phenomenon of 'repeat reports' serves as a key indicator of a gap in effectiveness, where a complaint is declared resolved by the system after officers take immediate action (such as issuing a warning or eviction), yet disturbances to public order resurface within a matter of hours or days.

**Table 3. Matrix of Discrepancies Between System Status and On-the-Ground Reality**

Problem Category	"Completed" Indicator in System	Field Reality (Substantive)	Effectiveness Constraints
<b>Illegal Street Vendors (PKL)</b>	Uploaded photo of the location after eviction/warning.	Vendors return to sell immediately after officers leave the location.	Actions are reactive and lack post-follow-up supervision.
<b>Permanent Illegal Buildings</b>	Status "Dispatched" or "Coordinated".	Buildings remain standing due to protracted cross-agency coordination processes.	Absence of a joint-ticket mechanism binding physical execution authority.
<b>Public Facility Disturbances</b>	Photo documentation of momentary repair/cleaning.	Issues (e.g., clogged drains) recur as structural causes remain unaddressed.	Lack of automatic flagging for chronic/recurring locations.

Source: Compiled from research findings, 2026

A scientific interpretation of these findings suggests that current digital systems generate a 'new administrative rationality' that emphasises procedural compliance and the mere fulfilment of key performance indicators (KPIs). Why does this gap exist? This is because the validation of resolution in the CRM relies heavily on instant visual before-and-after evidence, without taking into account the sustainability of the resolved condition. Field officers often feel pressured by the 6-hour response deadline, leading them to take the quickest (yet superficial) action to close the report ticket promptly and avoid negatively impacting the unit's performance score.

The gap in service effectiveness is particularly stark in cases of permanent unauthorised structures along riverbanks or pavements (Gunawan, 2024). Residents' reports regarding these structures often remain in 'Processing' or 'Administratively Closed' status with a note stating they have been coordinated, even though the structures physically remain standing. This demonstrates that digital technology has not yet been able to overcome the barriers of sectoral egos and a coordination bureaucracy that remains serial in nature. The current system is effective at channelling report information, but fails as an instrument of execution when issues require parallel joint decisions between technical agencies (such as the Water Resources Agency, the Public Works Agency, and the Public Order Agency).

The findings of this study are consistent with the critique by Weigl et al. (2024), who argue that user-centricity can conflict with public values if it is understood solely as ease of access without guaranteeing fair and comprehensive outcomes. These findings also confirm Nurhidayati's (2019) study that digital complaint systems do indeed promote accountability, but their quality is highly dependent on a commitment to substantive resolution at the operational level. There is a fundamental difference from claims of standard digitalisation success; at the

Jakarta Provincial Satpol PP, digitalisation has instead laid bare the limitations of field-level bureaucracy in handling chronic cases requiring permanent solutions, rather than merely incidental enforcement.

To bridge this effectiveness gap, the DKI Jakarta Provincial Satpol PP requires a shift in model from administrative digitalisation towards mitigative digitalisation through the development of a CRM-Mitigation Layer. This model requires the system not to treat every report as a new case, but rather to be able to recognise location history through an automatic flagging feature. Service effectiveness will only be achieved if the ‘Completed’ status is assigned based on validation of physical resolution and confirmation from the reporting resident (approval closing), accompanied by a post-follow-up monitoring mechanism to ensure the issue does not recur. Thus, digitalisation is no longer merely a tool for recording tickets, but a governance instrument that ensures the sustainable order of public spaces.

### Key Strategic Factors

An analysis of the financial aspects of the digital transformation of Satpol PP DKI Jakarta indicates that budget optimisation is not merely a question of the size of the allocation, but rather a strategy to shift the focus of spending from a reactive to a preventive approach. Based on the research findings, the current budget management model remains trapped in a reactive cycle, where resources are allocated on a massive scale to fund the deployment of personnel and vehicles to respond to the 30,508 complaints received throughout 2025 (Gunawan, 2025a). Data indicates that this operational burden continues to escalate due to the high number of repeat reports, occurring more than five times at the same location. Without a preventative model, the operational budget will continue to be drained by repeatedly addressing identical violations without producing permanent solutions.

The construction of a new model based on the CRM-Mitigation Layer offers a more intelligent approach to financial capability by prioritising investment in system intelligence (software and analytics) rather than merely procuring hardware. In this model, the budget is allocated to the development of Big Data and AI-based predictive analytics capable of identifying vulnerable points before disruptions occur. By utilising the 1,419 vulnerable points that have been mapped as an operational baseline, the Satpol PP can shift the budget from random patrols to risk-based patrolling, which is more cost-effective (Gunawan, 2025b).

**Table 4. Projected Operational Budget Efficiency: Reactive Model vs. Preventive Model**

Efficiency Indicator	Reactive Model (Existing)	Preventive Model (CRM-Mitigation Layer)	Long-Term Fiscal Impact
<b>Personnel Deployment</b>	Based on incoming reports (Reactive)	Based on risk maps and early warning	Reduced fuel and meal costs for random patrols.
<b>Recurring Cases</b>	Repetitive enforcement on the same object	Automatic flagging and permanent/cross-dept solutions	Avoids budget waste on the same recurring object.
<b>Follow-up Validation</b>	Manual field verification (Cost-intensive)	AI CCTV integration and real-time documentation	Reduction in travel costs for physical verification.
<b>Cross-Unit Coordination</b>	Serial disposition (Slow & costly coordination)	Joint-ticket and shared digital platform	Lower "waiting costs" and manual coordination meetings.
<b>Work Output</b>	Number of closed tickets (Administrative)	Decrease in violation frequency (Substantive)	Increased Public Value per rupiah spent.

Source: Compiled from the results of primary data analysis and the Satpol PP Strategic Plan 2025–2029, 2026.

A scientific interpretation of these findings suggests that the preventive model operates on the principle of ‘investing upstream to save costs downstream’. This model is cost-effective because the cost of integrating AI analytics and CCTV at high-risk locations is far lower than the cumulative cost of deploying dozens of Satpol PP officers repeatedly to the same locations to enforce regulations against street vendors or clear unauthorised structures. Through the

automatic flagging feature, organisations possess an ‘institutional memory’ that prevents the repetition of procedural errors, ensuring that budgets are not wasted on actions proven to have failed in the past.

The findings of this study are highly consistent with those of Gong and Yang (2024), who state that digitalisation performance is significantly influenced by the configuration of strategic factors, wherein financial capability must be supported by innovation capability to achieve optimal results. In the context of Jakarta, these findings also confirm the theory of Twizeyimana and Andersson (2019) regarding the dimension of improved administrative efficiency as the primary public value of e-government. A fundamental difference in this study is the emphasis on “efficiency of action” through a mitigation layer, which suggests that long-term budget savings can only be achieved if digital systems are capable of reducing the incidence of offences in public spaces, rather than merely speeding up the recording of such offences.

The failure to achieve substantive resolutions under the old model was often driven by sectoral egos, leading to budgetary inefficiencies across local government departments. The CRM-Mitigation Layer model, through its joint-ticket feature, enforces operational funding collaboration between the Satpol PP, the Water Resources Department, and the Public Works Department within a single resolution timeline. By distributing the workload in parallel, the duration of handling complex issues—such as the normalisation of channels occupied by illegal structures—can be reduced, which directly reduces the accumulation of daily operational costs that typically balloon due to protracted processes.

To conclude this section, the long-term optimisation of operational budgets at Satpol PP DKI Jakarta depends on the courage to transform towards a proactive system. By allocating funds to strengthen digital human resource capacity, maintain an integrated information system, and provide adequate official field equipment, Satpol PP can establish a sustainable monitoring framework. This preventive model not only saves the state money in terms of variable costs (fuel, personnel, logistics), but also boosts public trust as tax revenue is managed to create tangible, comprehensive urban order, rather than constantly returning to square one with the same issues.

## **E. CONCLUSION**

Based on the results of the analysis and discussion, it can be concluded that the implementation of digitalisation through a CRM system at Satpol PP DKI Jakarta has successfully transformed the administration of public complaints into a more structured, accountable and traceable process. This system has effectively reduced coordination bureaucracy at the upstream level, thereby minimising the transaction costs of communication between regional agencies. However, this study identified an efficiency paradox; where the administrative efficiency achieved through the speed of ticket closure in the application is often undermined by operational inefficiencies on the ground. This is caused by a reactive approach to problem-solving, leading to repeated reports at the same location that require the deployment of personnel and budget resources repeatedly without a permanent solution.

The gap in effectiveness is clearly evident in the discrepancy between the ‘Completed’ status in the system and the reality of unresolved substantive issues on the ground, particularly in complex cases such as unauthorised structures and chronic street vendor violations. Digitalisation currently only touches upon the record-keeping layer; it has not yet fully become a government intelligence tool capable of early detection. The most decisive strategic factor for optimising public service budgets in the future is the organisation’s ability to deeply integrate enforcement Standard Operating Procedures (SOPs) into the digital system, as well as sustained financial support allocated to strengthen data analytics functions.

As a tangible contribution, this study proposes the CRM-Mitigation Layer model as a new direction for the digital transformation of the Satpol PP. This model offers strategic benefits by shifting the digitalisation paradigm from merely a response tool to an early-warning mitigation mechanism. The positive impact of implementing this model is the achievement of long-term budgetary efficiency through a significant reduction in the frequency of violations, as resource allocation is shifted from costly reactive patrols towards preventive actions based on geospatial data. Ultimately, the success of public service digitalisation at Satpol PP DKI Jakarta is no longer

measured by the number of closed reports, but by the creation of sustainable urban order and increased public confidence in a government presence capable of providing comprehensive solutions to citizens' problems.

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