Optimising the SIMKAH Policy to Accelerate Marriage Administration A CIPP Model Evaluation and Findings on Infrastructure Improvements at KUA Seberang Ulu II, Palembang City

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ABSTRACT: Public services are increasingly expected to deliver faster, more accurate, and traceable administrative processes, particularly for marriage registration, where data validity has long-term legal consequences. In Indonesia, SIMKAH is designed to digitise and integrate marriage administration to enhance service efficiency and data consistency at KUA offices. However, the presence of SIMKAH does not automatically guarantee faster service, as the quality of implementation relies on local readiness and operational stability. At KUA Seberang Ulu II, several practical constraints may hinder administration, especially those related to infrastructure and workflow execution. This study proposes policy optimisation by aligning SIMKAH objectives with daily operational procedures to ensure that acceleration goals are clearly reflected in real service workflows. It highlights the importance of strengthening input readiness through adequate human resources, needs-based budgeting, and notably improved supporting infrastructure such as dedicated hardware. The optimisation also focuses on process reinforcement by stabilising internet connectivity, preparing operational procedures to manage system interruptions, and reducing rework caused by identity data mismatches. Furthermore, user support and guidance are emphasised to improve document readiness and minimise delays during verification and data entry. The study evaluates SIMKAH implementation using the CIPP framework (Context–Input–Process–Product) through a qualitative descriptive approach based on interviews, observation, and documentation. Findings are mapped onto the CIPP dimensions to identify key gaps, with the most significant areas for improvement related to process and infrastructure. This research provides a structured, decision-oriented assessment of a digital public service policy, demonstrating how the CIPP framework can reveal implementation bottlenecks beyond system availability. Practically, it offers actionable recommendations for infrastructure development and workflow standardisation to support a more consistent acceleration of marriage administration at KUA Seberang Ulu II, Palembang City.

KEYWORDS: CIPP Evaluation Model, SIMKAH, Marriage Administration, Policy Optimisation, Public Service Digitalisation.

INTRODUCTION

Public services are increasingly expected to be swift, accurate, and traceable, especially in civil religious administration, where records have long-term legal and social repercussions. In this context, marriage registration is not only a routine service but also a vital public duty that demands reliable data management and consistent procedures. (Setyawan, 2024; Sumardi et al., 2021). Indonesia's Sistem Informasi Manajemen Nikah (SIMKAH) was developed as an integrated information system and database to support marriage administration and provide faster, more precise services through technology-enabled management. It also seeks to centralise and safeguard marriage data for reporting and broader administrative functions across KUA offices. (Dorni et al., 2020; Mohamad Kasim et al., 2022).

Although SIMKAH has been implemented at KUA Seberang Ulu II, service acceleration does not happen automatically just because the system is in place. The thesis highlights that obstacles remain to providing optimal services, including among public users who do not fully understand the online process, which leads to underutilization of the system and delays in administrative procedures. (Anafi & Winarno, 2020; Hendriyanto1, Nofialdi2, Sri Yunarti3, 2023). Operationally, technical and infrastructure constraints also create practical bottlenecks. The study emphasises that, even when office facilities are generally sufficient,

SIMKAH implementation still requires devices that meet the necessary specifications, such as dedicated PCs, to optimise service performance. (Rozak & Rochim, 2023).

This study views policy optimisation as the key tool for speeding up the administration of marriage through SIMKAH. Optimisation here means ensuring that the program design and implementation align with institutional goals and actual service needs, so that the system reliably provides faster and more accurate service without creating new obstacles. First, optimisation must reinforce the purpose and direction of SIMKAH by clarifying expected outcomes (e.g., service speed, accuracy, data security, and accessibility) and aligning internal planning with real service conditions. In the thesis, program planning is described as matching "what is" to "what should be," ensuring that priorities and resources support the desired outcomes. (Hady et al., 2021; Muslih et al., 2020).

Second, optimisation requires enhancing input readiness, particularly in human resources, budgeting, and infrastructure. The thesis clearly suggests alternatives, such as allocating funds for infrastructure upgrades and expanding training for SIMKAH operators and designated staff, emphasising that capacity and facilities should develop together. Third, optimisation must strengthen process execution, including stabilising connectivity and maintaining consistent operational workflows. The study notes that switching to online SIMKAH exacerbated earlier network issues (initially relying on mobile data), which improved after dedicated internet/Wi-Fi support was introduced, demonstrating how connectivity directly affects service speed. Finally, optimisation must address the public-facing aspects of implementation. As limited public understanding can hinder effective use, SIMKAH requires enhanced socialisation and technical support so that citizens can prepare documents and follow procedures efficiently, enabling the "acceleration" goal to be realised by users, not just internally.(. et al., 2023; Anafi & Winarno, 2020; Bambang Hardiyanto Laga1, Aplonia Pala2, 2022; Hady et al., 2021).

To determine whether optimisation is necessary and where it should be focused, this research employs the CIPP evaluation model (Context, Input, Process, Product) because it facilitates systematic decision-making and identifies areas for improvement within program components. Methodologically, the evaluation is based on qualitative evidence gathered through interviews, observation, and documentation. This approach enables the study to understand real operational constraints, stakeholder experiences, and practical service effects, yielding actionable recommendations rather than merely describing system features.(Bahasan et al., 2016; Haji & Ulum, 2023).

Theoretically, the study advances public administration and policy analysis by employing a decision-oriented evaluation framework (CIPP) to examine an IT-enabled public service policy within an actual institutional context, broadening the discussion beyond "system effectiveness" to include policy and implementation quality. In practice, the findings provide a solid foundation for improvements at KUA Seberang Ulu II, particularly in infrastructure enhancement, operator skill development, and citizen support, thereby helping SIMKAH better achieve its goals: faster processing, more precise records, and more reliable service delivery.

MATERIALS AND METHODS

Figure 1. Research Workflow

1. Study design and setting

This study employed a qualitative descriptive design to evaluate and refine the implementation of the Marriage Management Information System (SIMKAH) policy to accelerate marriage administration services. The research was conducted at KUA Seberang Ulu II, Palembang City (Jln. Jend. Ahmad Yani, Lorong Gumai, Kelurahan 14 Ulu, Kecamatan Seberang Ulu II, Plaju, Palembang). The research timeline in the thesis spans January–March 2025.

2. Evaluation framework (CIPP)

The evaluation employed the CIPP model (Context–Input–Process–Product) to assess: (i) program planning and objectives (Context), (ii) human resources, funding, and facilities/infrastructure (Input), (iii) implementation procedures (Process), and (iv) outcomes/results of SIMKAH (Product)(Haji & Ulum, 2023).

3. Participants, samples, or data sources

a. Key informants were selected to obtain in-depth perspectives and enable cross-checking across roles. The study involved five informants, comprising KUA staff (including a senior marriage registrar/penghulu and SIMKAH operators) and two service users (a prospective bride/groom).

b. Data sources comprised primary data (interviews and observations) and secondary data (relevant documents/literature supporting the evaluation).

4. Data collection and measurement procedures

a. Data were collected through: (1) direct observation of SIMKAH-related workflows, (2) face-to-face interviews, and (3) documentation review of records relevant to marriage administration and SIMKAH implementation.

b. The thesis indicates the interview approach as flexible to capture practical constraints and fundamental implementation dynamics across CIPP dimensions(Bahasan et al., 2016).

Figure 2. CIPP Model

5. Statistical or analytical methods

a. Data were analysed using an interactive qualitative analysis model proposed by Miles and Huberman, which involves three iterative and interconnected steps: data reduction, data display, and conclusion drawing/verification. Data reduction entailed selecting, focusing, simplifying, and coding field data obtained from interviews, observations, and documentation to retain information relevant to SIMKAH implementation and service acceleration. The reduced data were then organised through data display (e.g., narrative matrices and thematic summaries) to facilitate pattern identification across informants and evidence sources. Finally, conclusions were drawn and continually verified by re-checking emerging interpretations against the dataset to ensure consistency and credibility (Yu et al., 2009).

b. To enhance interpretive clarity, the analysed themes were organised within the CIPP evaluation framework—Context, Input, Process, and Product—so that findings could be systematically linked to programme planning and objectives (Context), resource and infrastructure readiness (Input), implementation procedures (Process), and service outcomes (Product). This structure enabled the study to identify priority areas for improvement, particularly in administrative acceleration and infrastructure development to support optimal SIMKAH performance (Hakim et al., 2020).

6. Reporting guidance and software

a. In line with the template, the methods are described to support replication and are presented using the recommended subheadings.

b. The thesis materials shown in the available excerpts do not specify any dedicated analysis software.

7. **Ethical considerations**

   The thesis appendices include administrative research documents (e.g., research permission letters), indicating that fieldwork was conducted in accordance with institutional authorisation procedures.
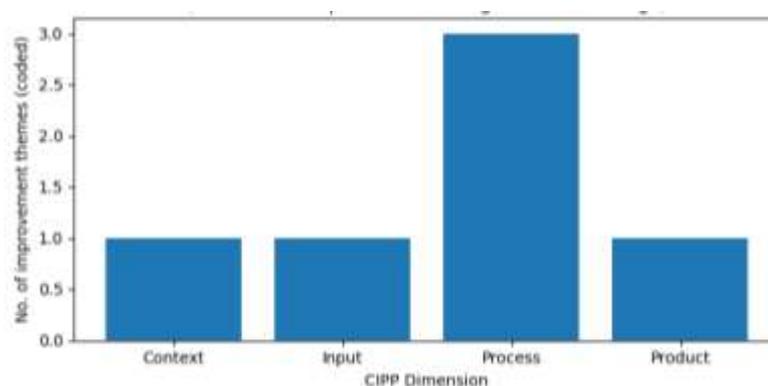
RESULTS

1. **Context (C) Evaluation Results**

   The context evaluation shows that the implementation of SIMKAH at KUA Seberang Ulu II was backed by programme planning aligned with the office's vision, mission, and documented service priorities. Informants described the planning as "well-arranged" and focused on enhancing marriage administration services through SIMKAH.

   Moreover, the KUA's planning context showed a transition from earlier manual methods and offline desktop use to full online implementation. Informants noted that KUA Seberang Ulu II had experience with SIMKAH desktop/offline versions before adopting SIMKAH online, thereby enhancing its preparedness for digital administration.

2. **Input (I) Evaluation Results**

   For input evaluation, the human resource component was generally assessed as adequate and proportionate to the assigned tasks, including document verification before marriage registration and the operational role of SIMKAH operators. This competency alignment supported smoother administration and reduced reliance on fragmented manual workflows.

   Financial support (budget and funding) was also reported to be sufficient and aligned with operational needs and planned work programmes, with budgeting described as needs-based and linked to programme implementation. However, infrastructure readiness showed a noticeable gap in improvement. Although basic facilities were in place, the study highlighted the need for dedicated or adequate hardware to optimise SIMKAH data processing performance. Damage to SIMKAH-related equipment and the lack of specialised devices were mentioned as constraints.

Figure 3. Distribution of Improvement Needs across CIPP Dimensions

3. **Process (P) Evaluation Results**

   The process evaluation found that SIMKAH policy implementation focused on standardising online applications across KUAs. At the local level, KUA Seberang Ulu II reported efforts to enhance and extend internet connectivity to support online workflows. Operationally, several mitigation measures were identified to keep the service process functioning: (1) boosting internet capacity, (2) encouraging applicants to update and synchronise personal data at Dukcapil before registration when discrepancies occur, and (3) proposing stronger server support (e.g., additional servers at least at the provincial level) and application updates to lessen operator workload. The study also highlighted uneven implementation beyond the case site (e.g., differences in online coverage across areas), indicating that success depends not only on policy design but also on local SDM capability and infrastructure readiness.

4. **Product (Pr) Evaluation Results**

   Product/output evaluation indicates that SIMKAH contributed positively to administrative efficiency and service orderliness at KUA Seberang Ulu II. The study reports that administrative targets were met and service scheduling, including penghulu

service delivery, functioned smoothly, with document preparation passing verification standards. Regarding service quality outcomes, informants highlighted improved data accuracy because SIMKAH allows "single-entry" data consistency across outputs (registration, records, and marriage book printing), reducing mismatch errors that were common under manual separation of tasks. SIMKAH also improved public information dissemination through online announcement platforms (e.g., marriage-intention notices), making them accessible to a larger audience than traditional manual postings, which often went unnoticed. This enabled faster dissemination and reduced administrative errors related to announcement procedures. Additionally, SIMKAH supported administrative controls such as verification markers for underage applicants (requiring court dispensation), demonstrating an operational advantage beyond speed—namely, ensuring compliance.

Table 1. CIPP Evaluation Results (Qualitative Summary)

CIPP Dimension	Evaluation Focus	Main Findings	Strengths	Improvement Priorities
Context	Program planning & objectives	SIMKAH is designed to accelerate and streamline marriage administration; its implementation at KUA proceeds with clear direction and aligns with service needs.	The programme's direction is clear; the service aims to be faster and more orderly.	Strengthen the consistency of daily SOP goals; internal socialisation so that all officers understand the 'ideal flow' of services based on SIMKAH.
Input	Human resources, funding, facilities/infrastructure	SDM/operators are available and support the implementation; however, the need for specialised devices/hardware for SIMKAH and facility maintenance remains a weakness.	The roles of operators and service personnel support operations; funding is based on programme needs.	Procurement/upgrading of devices (PC/laptop, printer, network); repair of damaged facilities; prepare backup devices to prevent service interruptions.
Process	Implementation procedures & workflow	Technical issues constrain the process: unstable network connectivity, slow/buggy server access, and mismatches in citizen identity data, which hinder SIMKAH input.	There are mitigation efforts: improving internet connectivity, directing data updates to the Civil Registry Office, and adjusting procedures to ensure services continue to operate.	Stabilise the connection (internet redundancy); create an SOP for handling data mismatches; standardise the verification checklist; and define an escalation mechanism when the server encounters issues.
Product	Outcomes & results	SIMKAH supports the acceleration of services, improves the neatness and accuracy of data through integrated input, and helps enhance the transparency of service information.	More orderly services; more consistent data; neater administrative output.	Advanced operator training; strengthening data security; monitoring service performance (processing time, error rate, downtime).

5. Key Constraints Affecting Administrative Acceleration (Infrastructure-Linked Findings)

Despite positive outcomes, the study identified recurring constraints that directly hindered the administration: unstable internet connectivity causing SIMKAH disconnections; data discrepancies between applicant documents and server records; damaged SIMKAH facilities; and limitations of the centralised server (a single national server), leading to competition for

access, delays, and occasional bugs that disrupt entry processes. These constraints explain why "administrative acceleration" was achieved in service results at the case site, yet remained vulnerable to infrastructure readiness and national system capacity, meaning the process can be swift until the server decides to take a coffee break.

Table 2. Key Constraints and Mitigation/Recommended Actions

Constraint / Bottleneck	Likely Root Cause	Impact on Service Speed	Current Mitigation (Observed)	Recommended Action (Optimisation)
Internet/network instability	Limited bandwidth, unstable network quality	Input data disconnected; the queue is increasing; service becomes inconsistent.	Adding/improving the internet connection (Wi-Fi)	Use two internet channels (primary and backup); monitor the network; schedule input during low-traffic hours if necessary.
Centralized server (slow/lag/bug)	High burden due to centralised national access	The application is slow, and the input process is delayed	Retry/wait; adjusting the service flow when the server is busy	Encourage the enhancement of server capacity (at least regional/provincial); create an SOP for 'downtime mode" (manual queueing temporarily + follow-up input)
Applicant identity data mismatch	ID card/Family Card/diploma/birth certificate data is not synchronised	Old verification; registration may be delayed	Directing the applicant to update their data at the Civil Registry Office	Apply the pre-check checklist before the registration day; educational letter/WhatsApp template for documents; (optional) initial integration/validation if available
Limited/damaged SIMKAH hardware	Inadequate or damaged device	Workstation bottleneck; operator alternates devices	Using shared or makeshift devices	Prepare a dedicated SIMKAH workstation and printer; a maintenance schedule; and backup devices for emergencies.

DISCUSSION

This study assessed the implementation of the SIMKAH policy at KUA Seberang Ulu II, using the CIPP framework to determine the extent to which the system supports the acceleration of marriage administration and to identify further optimisations needed. Overall, the findings indicate that SIMKAH has contributed to more orderly and integrated administrative services. Still, the goal of expediting processes remains highly dependent on infrastructure readiness and operational stability, especially within the Process dimension. From the Context perspective, SIMKAH implementation benefits from a clear focus on service improvement. Programme objectives and planning provide a solid foundation for digital administration, including the shift from offline/desktop practices towards online processing. This alignment is crucial because policy-driven information systems tend to perform better when local implementation goals are translated into daily workflows rather than being viewed as purely technical deployments.

The Input evaluation indicates that human resources and operational support are generally available, suggesting that SIMKAH is not mainly limited by staffing. However, the remaining challenge lies in the adequacy of supporting facilities— exceptionally dedicated hardware and dependable network capacity. In public service digitalisation, infrastructure gaps often become "silent constraints": systems seem implemented, but the quality of service and consistency depend on whether staff can perform tasks without device bottlenecks and frequent interruptions.

The most notable improvement is observed in the Process dimension, which aligns with the distribution of improvement themes shown in Figure 1. The workflow is prone to unstable connectivity, system lag, and technical disruptions that interrupt

data entry and verification. These findings suggest that the primary challenge is not the policy intention but the operational conditions that determine whether SIMKAH can operate continuously during service hours. A key operational issue is the reliance on the performance of centralised systems (e.g., server load, latency, and occasional bugs). When a digital system is used as a mandatory administrative channel, centralised instability directly causes local service delays. Therefore, speeding up administration requires not only local readiness but also system-level robustness and clear local contingency plans for handling disruptions.

Another process-related challenge is the mismatch of data between applicant documents and recorded identity information. This issue delays verification and can postpone registration steps, ultimately undermining the goal of faster service. The results suggest that acceleration is not solely about improving SIMKAH features; it also depends on upstream data quality and standardised pre-check procedures that minimise corrective loops during registration. Despite these operational bottlenecks, the product evaluation indicates that SIMKAH enhances service outcomes, including improved organisation, integrated data management, and more consistent outputs, through centralised entry. These benefits explain why users and implementers perceive improvements even when disruptions still occur. SIMKAH improves accuracy and administrative control, but the extent of speed enhancements varies with process stability.

The findings collectively indicate that policy optimisation should prioritise interventions that directly reduce downtime and rework. In practice, this involves strengthening infrastructure (such as dedicated devices, maintenance, and backups), ensuring more stable network access (including redundancy), and formalising operational procedures for managing system disruptions and applicant data mismatches. Essentially, speeding up administration requires transforming "workarounds" into formal operating standards. KUA-level optimisation can be structured into three areas: (1) technical readiness (hardware, maintenance, redundancy, connectivity monitoring), (2) workflow standardisation (checklists, escalation routes, downtime procedures), and (3) service-user preparedness (pre-submission guidance and document consistency checks). These areas align directly with the CIPP model, ensuring that improvements are not isolated fixes but part of the programme's objectives, resources, procedures, and outcomes.

This study's strength lies in its structured evaluation using the CIPP framework, which clearly links findings to practical improvements. However, the results are limited by the qualitative, single-site case study and the small number of informants, restricting broader generalisation. Additionally, service speed improvements were assessed using operational reports rather than objective time-motion measurements, an area that warrants further exploration in future research. Future studies might expand on this work by comparing multiple sites across different KUAs with varied infrastructure profiles, and by employing mixed methods such as service-time measurement, SIMKAH log analysis (downtime frequency, input delays), and user satisfaction metrics. Intervention-based studies, such as testing hardware upgrades, network redundancy, or structured pre-check protocols, would be particularly valuable for quantifying which optimisation strategy yields the most significant improvements in administrative efficiency and data accuracy.

CONCLUSION

This study concludes that the SIMKAH policy at KUA Seberang Ulu II, Palembang City, generally supports the goal of accelerating marriage administration by improving service orderliness, strengthening integrated data management, and enhancing the consistency of administrative outputs. The 'Context' and 'Input' dimensions show that SIMKAH implementation is guided by clear service-improvement objectives and supported by available human resources and operational planning. However, service acceleration is not yet consistently optimal because the primary constraints are concentrated in the Process dimension. Operational performance is often affected by unstable internet connectivity, limitations of the centralised system/server (lag, access competition, and occasional bugs), mismatches between applicants' documents and recorded data, and limited or damaged supporting hardware. These issues cause delays during verification and data entry, reducing the reliability of service speed. Therefore, policy optimisation should focus on: (1) strengthening infrastructure readiness (dedicated devices, maintenance, and backup equipment), (2) improving network reliability through redundancy and monitoring, (3) standardising workflows for handling server disruptions and applicant data mismatches, and (4) enhancing user preparedness through systematic pre-check guidance and more precise document requirements. Implementing these improvements is expected to improve the consistency of service acceleration and ensure SIMKAH delivers both speed and accuracy in marriage administration.

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