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Implementation of Smart City Program Policy on The Use of Samagov Application in Digital Sub-District of Samarinda Seberang

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***Abstract*—**This research investigates the implementation of the Smart City program policy through the application of Samagov within the digital sub-district initiative in Samarinda Seberang. The study aims to examine the extent to which the policy has been realized in practice, as well as to identify the supporting and inhibiting factors influencing its effectiveness. Employing a qualitative descriptive approach, the data were collected through in-depth interviews, document analysis, and field observations. The research framework is grounded in George C. Edward III's policy implementation model, which emphasizes four core variables: communication, resources, disposition of implementers, and bureaucratic structure. The findings reveal that although the application represents a strategic effort in modernizing public service delivery, several significant obstacles remain. These include ineffective communication between stakeholders, lack of clarity in information dissemination, insufficient trained human resources, and a bureaucratic structure that is not yet adaptive to digital transformation. Additionally, the supporting Standard Operating Procedures (SOPs) are still under development, which has led to inconsistencies in service execution. On the other hand, some enabling factors were identified, such as leadership commitment, availability of digital infrastructure, and collaboration with technology providers. The study concludes that a more structured and inclusive implementation strategy is needed, particularly by improving inter-agency coordination, simplifying SOPs, providing regular technical training, and increasing community digital literacy. The establishment of digital service units at the sub-district level is also recommended to ensure service consistency and accessibility. Effective policy implementation in this context is expected to accelerate digital governance practices and contribute to more transparent, efficient, and inclusive public service delivery in line with the Smart City vision.

***Keywords*—**Policy Implementation, Digital Governance, Samagov, Smart City, Public Service Innovation

I. Introduction

In recent decades, the acceleration of digital transformation has profoundly influenced public sector governance around the world. Governments, particularly in urban areas, have increasingly relied on the adoption of information and communication technologies (ICT) to enhance administrative efficiency, foster transparency, and improve public service delivery. This transformation has culminated in the global diffusion of the Smart City concept a framework that integrates technology, institutional capacity, and community participation to build sustainable, data-driven urban environments (Novianto, 2023).

Indonesia, as one of the largest decentralized democracies in the world, has embraced this global shift through a series of national programs and regulatory frameworks. The Presidential Instruction No. 3 of 2003 on e-Government development and the Presidential Regulation No. 95 of 2018 concerning the Electronic-Based Government System (SPBE) serve as foundational policies that direct public agencies at all levels to digitize their operations and deliver services through electronic platforms (KemenPANRB, 2018). Within this framework, the "Gerakan Menuju 100 Smart City" program launched in 2017 aims to guide selected cities in adopting smart governance practices aligned with national priorities for bureaucratic reform and innovation (Kominfo, 2021).

The city of Samarinda, the capital of East Kalimantan province, was selected as one of the participating cities in this national Smart City initiative. In response, the municipal government developed the Masterplan Samarinda Smart City Plus 2022–2025, formalized under Mayor Regulation No. 79 of 2022. The masterplan outlines six strategic pillars Smart Governance, Smart Economy,

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Smart Environment, Smart Living, Smart Society, and Smart Branding and emphasizes the importance of digitalizing administrative services at the sub-district and village levels. A core component of this vision is the development and deployment of the Samagov application (Samarinda Government), a platform initially known as Santer (Satu Aplikasi Terintegrasi) that integrates multiple public service functions into a single digital interface (Diskominfo Samarinda, 2023).

One of the pilot implementations of the Samagov application was carried out in the sub-district of Samarinda Seberang, which has been designated as a "Kecamatan Digital" (Digital Sub-District). This designation reflects a commitment to transform local governance by transitioning from manual service delivery to a fully digitized model. Samagov aims to offer citizens real-time access to a variety of services including administrative document processing, service requests, complaint handling, and information dissemination all of which are accessible through web and mobile platforms.

Despite its promising objectives, the implementation of Samagov has encountered numerous operational challenges. Preliminary field observations and interviews indicate that the application's uptake among citizens remains low, and many local government staff struggle to fully integrate the system into daily workflows. Issues such as limited digital literacy, particularly among older citizens and civil servants; lack of well-defined Standard Operating Procedures (SOPs); insufficient technical training; and fragmented inter-agency coordination have impeded the full realization of the program's intended benefits. These obstacles highlight the often-overlooked complexities in translating policy intentions into operational success a phenomenon extensively discussed in the public policy literature (Mashau & Kroeze, 2024).

Furthermore, a culture of resistance to technological change persists within the sub-district bureaucracy. Many mid- and senior-level civil servants remain reluctant to adopt digital workflows, often citing increased workload, unfamiliarity with system navigation, or fear of making errors as reasons for preferring manual processes. Similar resistance has been documented in other regions implementing e-government, where legacy systems and deeply entrenched administrative cultures pose significant barriers to innovation (Marselia, 2022). In Samarinda Seberang, these sociocultural and institutional dynamics combine to create an environment where the transformative potential of digital governance remains largely unrealized.

To better understand these implementation gaps, this study employs George C. Edward III's policy implementation framework, which emphasizes four key variables as determinants of policy outcomes: communication, resources, disposition of implementers, and bureaucratic structure. These variables provide a comprehensive lens through which the interaction between policy design and real-world execution can be assessed. Applying this model to the Samagov case offers valuable insights not only for the city of Samarinda but also for other local governments navigating similar digital transitions.

The study also recognizes that alongside barriers, there are enabling factors that could potentially support successful implementation. These include strong political will from the city leadership, a growing user base among younger citizens, collaboration with technology vendors such as Amazon Web Services (AWS) for backend infrastructure, and increased budget allocations for digital transformation projects. Identifying and leveraging these factors could serve as a basis for policy recommendations that enhance program outcomes.

To illustrate the dual nature of both opportunities and challenges in the implementation of the Samagov application, a synthesized overview highlights key categories affecting the system's adoption and effectiveness in Samarinda Seberang. From a technological perspective, collaboration with Amazon Web Services (AWS) offers a scalable and secure infrastructure, providing a strong foundation for digital governance. However, this advantage is counterbalanced by frequent system bugs and limited compatibility with existing legacy systems. In terms of human resources, younger staff members have demonstrated a willingness to engage with digital tools, indicating potential for long-term capacity building. Nonetheless, resistance from older staff, coupled with the absence of continuous technical training, poses a serious barrier to widespread and consistent use. Regarding community readiness, increasing smartphone penetration and the enthusiasm of younger citizens suggest growing acceptance of digital services. Yet, this progress is hindered by low digital literacy rates among older adults and marginalized groups. Institutionally, the strong support from the mayor and the alignment of the Smart City agenda with the Regional Medium-Term Development Plan (RPJMD) provide strategic legitimacy for the program. Despite this, the lack of finalized Standard Operating Procedures (SOPs), weak inter-agency coordination, and fragmented service workflows present persistent obstacles. Lastly, in the area of service delivery, the platform enables more efficient document handling and reduces the need for face-to-face interactions. However, limited public awareness and the lack of integrated digital services often lead to duplication of effort and citizen frustration. These contrasts highlight the importance of addressing both structural and behavioral components in the continued development of Samagov.

In light of these dynamics, this study seeks to investigate how the Smart City policy specifically through the Samagov application is being implemented at the sub-district level in Samarinda Seberang. The research focuses on assessing the effectiveness of the implementation process, identifying key enablers and constraints, and proposing actionable strategies to improve digital service delivery in alignment with smart governance principles.

Through a qualitative descriptive approach combining interviews, observations, and document analysis, the study aims to contribute both theoretically and practically. Theoretically, it adds to the literature on public policy

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implementation in digital contexts, particularly in decentralized governance systems. Practically, it offers policy insights for local governments in Indonesia and other developing countries that are seeking to navigate the digital transformation of their public administration systems.

II. METHODS

The research design employed in this study is qualitative with a descriptive approach, which is appropriate for understanding and interpreting social phenomena, particularly the dynamics of public policy implementation in local governance contexts. Qualitative methods are well-suited for exploring complex, context-dependent processes such as how policies are interpreted, negotiated, and enacted by various actors within an administrative setting (Creswell & Plano, 2022). Given the study's focus on the implementation of the Smart City program policy through the Samagov application in Samarinda Seberang a sub-district undergoing digital transformation this methodological approach enables a deeper exploration of the variables influencing implementation success or failure.

The descriptive nature of the study allows for a detailed depiction of the policy implementation process as it occurs in practice, not just how it was intended in policy documents. By focusing on actor behavior, institutional settings, and contextual barriers, the research seeks to reveal the interaction between policy design and its actual realization on the ground. The analytical framework is anchored in George C. Edward III's policy implementation model, which identifies four critical variables: communication, resources, disposition of implementers, and bureaucratic structure. These variables serve both as a lens for data interpretation and as a basis for constructing interview questions and field observations.

A. Research Focus and Analytical Framework

This study uses Edward III's model to assess SAMAGOV implementation, with each variable examined through context-adapted indicators. Table 1 presents the operational definitions of the research focus.

Table 1. Operational Framework Based on Edward III's Implementation Model

Variable	Operational Indicators	Focus in Samagov Implementation
Communication	Clarity, consistency, and dissemination of policy messages	How well the application is socialized to staff and citizens
Resources	Human resources, budget, technical infrastructure	Availability of trained personnel, system reliability, financial support
Disposition	Attitudes, understanding, and willingness of implementers	Willingness of sub-district officials to adopt and promote digital services
Bureaucratic Structure	SOP availability, role clarity, coordination between units	Existence and enforcement of SOPs, clarity of tasks, inter-agency collaboration

B. Research Focus and Analytical Framework

The study was conducted in Samarinda Seberang Sub-District, which serves as a case study for the digital transformation efforts under the Samarinda Smart City Plus Masterplan 2022–2025. This sub-district was selected due to its inclusion in the digital sub-district program and its early implementation of the Samagov platform. As such, it provides a valuable empirical context to observe implementation dynamics, stakeholder interactions, and the technological as well as institutional adaptations required for digital service transformation.

The selection of this location is also justified by its strategic position in the broader urban governance of Samarinda and its demographic diversity, which includes both technologically literate urban residents and communities with low digital literacy levels making it a representative sample of implementation challenges in developing cities.

C. Types and Sources of Data

This study draws upon a comprehensive range of data sources by combining both primary and secondary data to ensure analytical rigor and facilitate the triangulation process. Primary data were gathered through various qualitative techniques, including semi-structured interviews, participant observations, and informal conversations with individuals directly involved in or affected by the implementation of the Samagov application. These informants included a diverse group of stakeholders such as sub-district administrators, information technology developers from the Department of Communication and Information Technology (Diskominfo), front-line staff responsible for delivering administrative services, and community members who have either utilized or are aware of the Samagov platform. The use of open-ended interviews allowed respondents to express their experiences, perspectives, and challenges in adopting the digital system, while observations conducted at the sub-district office provided valuable insights into the day-to-day administrative practices, staff interactions, and how digital tools are integrated or neglected within routine workflows.

In parallel, secondary data were collected from a variety of institutional sources and documentation to support, verify, and contextualize the field findings. These documents included formal publications such as the Samarinda Smart City Masterplan 2022–2025, relevant regulatory frameworks including mayoral and ministerial regulations, draft versions of Standard Operating Procedures (SOPs), training manuals used during digital literacy programs, official statistical reports, and internal communications such as meeting notes and memos issued by city officials. Additional information was obtained from public media articles and government websites that provided updates on the progress of the Smart City initiative and digital service transformation within Samarinda. Together, these materials offered insight into the intended policy direction, the official narrative regarding e-government implementation, and institutional expectations surrounding the Samagov application.

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By integrating primary and secondary sources, the study is able to cross-reference data, enhancing both the reliability and validity of its findings. This methodological strategy enables the researcher not only to capture the lived experiences of policy implementers and service users but also to assess whether the formal goals set out in institutional plans and policies correspond to the realities encountered in practice. Such an approach is essential in public policy research, especially when examining implementation gaps in complex governance settings.

D. Data Collection Techniques

This research employed several qualitative data collection techniques to ensure a comprehensive and context-sensitive understanding of the Samagov policy implementation process in Samarinda Seberang. One of the primary methods used was in-depth interviewing, which was conducted with a carefully selected group of 15 informants. These included key stakeholders such as the sub-district head (camat), section heads, technical staff from the Department of Communication and Information Technology (Diskominfo), IT support personnel responsible for the operational aspects of the Samagov system, and residents from the local community who had interacted with or were familiar with the application. The interviews followed a semi-structured format, using an interview guide based on the four variables identified in George C. Edward III's implementation framework communication, resources, disposition, and bureaucratic structure. This thematic structure helped ensure that responses remained focused while allowing flexibility for participants to elaborate on their experiences, challenges, and perceptions.

In addition to interviews, participant observation was carried out intensively over a six-week period. During this phase, the researcher conducted direct field visits to the sub-district office to observe the flow of service delivery, staff-citizen interactions, and the integration or lack thereof of the Samagov platform in daily administrative activities. Observational data were meticulously recorded in field notes, capturing specific behavioral patterns, reactions to technological tools, instances of system failure or success, and the general work culture among civil servants. This method provided rich, first-hand insight into the operational environment and allowed the researcher to validate or challenge information gathered through interviews.

Complementing these techniques, document review was conducted to analyze a variety of written materials that were directly relevant to the implementation of the Samagov application. These included formal policy documents such as mayoral regulations, strategic plans related to the Smart City program, frameworks outlining the digital service model, and drafts of Standard Operating Procedures (SOPs) prepared to guide staff in using the application. Furthermore, evaluation reports from Diskominfo, internal memos, training materials, and meeting summaries were examined to understand how the program was framed at the institutional level and how progress was monitored. The review of these documents helped to contextualize the interview and observational data, offering a broader understanding of the alignment or disconnection between policy design and field execution.

The selection of informants followed a purposive sampling strategy, which is commonly used in qualitative research to identify and recruit individuals who possess in-depth knowledge or direct experience related to the research topic. In this case, the inclusion criteria emphasized participants' roles in digital public service delivery, their familiarity with the Samagov platform, their administrative positions within the sub-district or city-level government, and their overall involvement in or exposure to the Smart City initiative. This sampling method ensured that the data collected would be rich in relevance and directly linked to the policy implementation phenomena under investigation. By employing this triangulated data collection strategy, the research was able to capture multiple perspectives and layers of meaning, thereby enhancing the validity and depth of the overall analysis.

E. Data Analysis Method

In analyzing the qualitative data obtained throughout this study, the researcher adopted the interactive model of data analysis developed by Miles, Huberman, and Saldaña (2020), a well-established framework in qualitative research for extracting meaning from complex datasets. This model operates through an iterative and continuous cycle of three core components data condensation, data display, and conclusion drawing with verification. These stages are not conducted linearly but interact with one another throughout the research process, allowing for deeper analytical engagement and constant refinement of emerging insights.

The first stage, data condensation, involves the process of selecting, simplifying, and transforming raw qualitative data into meaningful segments. In this study, data condensation was carried out by thoroughly reading and coding transcribed interviews, field notes from observations, and relevant excerpts from reviewed documents. These data were then grouped into thematic categories corresponding to the four key variables proposed in Edward III's policy implementation model: communication, resources, disposition, and bureaucratic structure. This thematic orientation helped ensure that the analysis remained focused on evaluating the implementation process in a structured and theoretically grounded manner. Codes were developed both inductively, based on new patterns emerging from the data, and deductively, based on the existing theoretical framework.

Following condensation, the researcher proceeded to the second phase: data display. In this stage, data were organized visually into charts, tables, and matrices that allowed for easier comparison and identification of patterns. For example, matrices were used to map the relationship between the availability of human resources and the operational barriers observed in service delivery, or to contrast different stakeholders' perspectives on communication effectiveness within the policy framework. Data displays helped reveal recurring issues such as gaps in SOP application, variations in staff attitudes, and inconsistencies in citizen access to the

Samagov platform. These displays facilitated both within-case and across-case analysis, allowing for deeper exploration of sub-themes and their interconnections.

The final stage of the analysis involved drawing conclusions and verifying them. At this point, the researcher synthesized the key findings, formulated analytical interpretations, and sought to establish validity through a process of triangulation. Findings were cross-checked across the various data sources interviews, observations, and documents to identify converging or diverging narratives. Additionally, member checking was employed, whereby selected informants were asked to review the summarized findings for accuracy and authenticity, further strengthening the reliability of the conclusions. This step ensured that the insights presented were not merely interpretations by the researcher but were grounded in the actual experiences and reflections of the participants.

To support the analytic process, coding and thematic categorization were conducted both manually and with the assistance of qualitative data analysis software such as NVivo. The use of such software enhanced the precision of coding, facilitated the management of large amounts of textual data, and allowed for more advanced queries and cross-case comparisons. The software tools were particularly useful in identifying subtle but recurring themes that might not have been immediately apparent through manual coding alone. By combining manual interpretation with technological support, the researcher was able to deepen the analytic rigor and develop a more nuanced understanding of the policy implementation landscape surrounding the Samagov application in Samarinda Seberang.

F. Validity, Reliability, and Ethical Considerations

To ensure the quality and trustworthiness of the research findings, this study applied several strategies commonly used in qualitative research to enhance credibility, transferability, and dependability. One of the primary strategies was triangulation, which involved combining multiple data collection methods including in-depth interviews, participant observations, and document analysis to cross-verify the information obtained from different sources. This approach allowed the researcher to validate emerging patterns, reduce bias, and provide a more comprehensive view of the implementation process of the Samagov application. Through triangulation, the consistency of findings could be assessed, strengthening the study's internal validity and reducing reliance on a single type of evidence.

Another important strategy was member checking, which refers to the practice of sharing preliminary interpretations and summaries of data with key informants to verify the accuracy and resonance of the researcher's understanding. During this process, several informants were invited to review the synthesized findings and offer feedback regarding whether the interpretations truly reflected their experiences and perspectives. This step not only helped ensure the authenticity of the data but also fostered a sense of collaboration and ethical engagement with the participants.

In addition, the researcher maintained a rigorous audit trail throughout the research process to enhance transparency and accountability. This included systematic documentation of all phases of data collection and analysis, such as interview transcripts, observation notes, coding decisions, thematic categorizations, and memo writing. The audit trail served as a methodological logbook that allowed others to trace how conclusions were reached and how analytical frameworks were applied to empirical evidence. It also provided a means for future researchers to replicate or assess the study's approach with greater clarity.

To further strengthen analytical credibility, peer debriefing sessions were conducted with academic supervisors and colleagues familiar with qualitative research and public administration. These discussions provided an opportunity to critically examine the assumptions embedded in the data interpretation process, challenge potential researcher bias, and refine the emerging themes. By engaging in constructive dialogue with academic peers, the researcher was able to test the robustness of the findings and enhance the theoretical depth of the analysis.

Ethical considerations were also given a central place in the research design. The study obtained formal approval from the university's ethics committee, ensuring that all research activities adhered to institutional standards for human subjects research. Prior to participation, all informants were given a clear explanation of the study's purpose, procedures, and their rights, after which written informed consent was obtained. To maintain confidentiality and protect participants' privacy, identifying details were anonymized in all records and reporting. Pseudonyms were used where necessary, and data were stored securely with limited access.

By integrating a theory-driven analytical framework with contextually grounded field data, this methodological approach enabled a holistic exploration of the structural and behavioral dimensions of policy implementation within the realm of local digital governance. As Edelmann et al., (2023) emphasize, building institutional capacity is a central requirement for digital transformation in decentralized governance settings. The combination of rigor, transparency, and ethical integrity ensured that the study could deliver valid and meaningful insights into how digital public service innovations such as Samagov are operationalized in decentralized urban settings like Samarinda. Ultimately, this framework supports not only a scholarly understanding of smart governance implementation but also offers practical guidance for policymakers seeking to navigate the challenges of digital transformation at the local government level.

III. Results and Discussion

The implementation of the Samagov application in the sub-district of Samarinda Seberang has revealed a range of findings that reflect both progress and persistent obstacles in realizing smart governance at the local level. The results are discussed thematically in accordance with the policy implementation model proposed by Edward III, which

provides a systematic lens for evaluating how well a policy is translated into operational practice.

A. Communication

A key finding of this study concerns the inadequacy of communication mechanisms between the central implementing body, the Department of Communication and Informatics (Diskominfo), and the sub-district administration of Samarinda Seberang. Despite initial efforts to introduce the Samagov application through official socialization sessions, the communication process appears to have been largely top-down and one-off in nature, lacking sustained engagement or follow-up support. Many sub-district staff members, particularly those directly involved in administrative service delivery, indicated that they did not fully grasp how the Samagov system functioned within the broader service workflow. Some reported that their knowledge of the system was limited to surface-level demonstrations, with no in-depth orientation on how to handle system failures, update modules, or integrate the platform into routine administrative procedures.

This breakdown in internal communication is symptomatic of what Edward III identifies as a critical weakness in policy implementation: the failure to deliver clear, consistent, and continuous information from policymakers to implementers. In the case of Samagov, the absence of a robust internal feedback loop means that problems encountered by sub-district staff such as login difficulties, missing service categories, or unclear verification steps often remain unresolved or are addressed informally among peers rather than escalated to the appropriate technical support teams. This not only delays problem-solving but also fosters an environment where civil servants operate with uncertainty and low confidence in the system.

Equally problematic is the lack of communication directed at the general public. While the Samagov application is intended to facilitate access to administrative services for citizens, its existence and utility remain largely unknown to the community. Empirical evidence from field interviews reveals that out of 10 residents questioned, only 3 had ever heard of Samagov, and only one had attempted to use it. Even among those who had some awareness, most stated that they learned about the application either through relatives who work in government offices or by experimenting independently. None of the residents mentioned receiving any form of official communication, such as brochures, SMS notifications, posters, or community outreach sessions, related to Samagov.

These findings point to a significant deficiency in public communication strategy, a factor that several scholars have identified as crucial in digital government initiatives. According to Mergel et al., (2020), sustained citizen engagement and trust in digital platforms depend not only on technology but on ongoing efforts to educate, inform, and support the public in navigating new systems. In Samarinda Seberang, this lack of a systematic outreach strategy has contributed to low user adoption rates, even though the infrastructure has been partially implemented.

Furthermore, there appears to be a mismatch between the communication channels preferred by the local population and those used by the government. For instance, many residents rely heavily on WhatsApp and local Facebook groups for updates, yet the Samagov-related information has not been disseminated through these platforms. This oversight further reduces the likelihood that the platform will be organically adopted by its intended users.

To illustrate these empirical findings, the following table 2 summarizes the observed communication gaps based on field data.

Table 2. Communication Gaps in the Implementation of Samagov in Samarinda Seberang

Dimension	Findings
Internal Communication	One-off socialization sessions without follow-up; no structured technical support system
Staff Understanding	Limited comprehension of platform functions; reliance on peer-to-peer learning
Public Awareness	70% of residents interviewed had never heard of Samagov
Source of Information	Informal channels (relatives, peers); no official outreach or community education programs
Preferred Communication Tools	WhatsApp and Facebook; not utilized by local government for Samagov promotion
Resulting Issues	Low adoption rates, misinformed users, and service delivery delays due to system confusion

The absence of an integrated and sustained communication strategy has had tangible consequences for the implementation of the Samagov system. Not only has it resulted in poor coordination among implementers, but it has also limited the potential benefits for residents who are meant to be the primary beneficiaries of this digital innovation. In line with the assertions of (Zukhrian Warsdapama et al., 2024), effective implementation requires not just formal compliance but the active participation and understanding of all actors involved including service providers and recipients. Without correcting the communication deficit, the broader goals of smart governance namely transparency, accessibility, and efficiency will remain out of reach.

To address this, a multi-pronged communication strategy is essential. This includes regular in-service training and support for staff, the use of local digital communication channels for public outreach, and the development of user-friendly guides or tutorials tailored to varying literacy levels. Ultimately, effective communication is not a one-time activity but a continuous engagement process that underpins the successful implementation of any public policy initiative, particularly those involving digital transformation.

B. Resources

The success of any policy implementation particularly one rooted in digital transformation relies heavily on the availability and adequacy of supporting resources. In the context of Samagov implementation in Samarinda Seberang, the study identified critical deficiencies in both

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human and technological resources, which have significantly hindered the platform's full operationalization. These limitations are consistent with George C. Edward III's argument that resource inadequacy, whether in the form of personnel, equipment, or financial support, constitutes a core barrier to policy effectiveness, regardless of the clarity or ambition of the policy design.

From the human resource perspective, the sub-district office suffers from a severe skills gap, particularly concerning digital competencies required to operate and manage the Samagov system. Field interviews with administrative personnel revealed that most staff had not received formal or structured training on how to use the application, leading to a situation where digital service delivery is heavily dependent on just one or two technically competent employees. These individuals often younger or with IT-related backgrounds serve as informal "digital intermediaries" responsible not only for handling online services but also for assisting their colleagues. This overreliance creates vulnerabilities in service continuity; when these individuals are absent or overwhelmed, digital processes stall, and manual methods are reinstated as a fallback. Such bottlenecks not only decrease service efficiency but also discourage other staff members from independently engaging with the system, thereby reinforcing a cycle of dependency and inertia.

Furthermore, this skill imbalance contributes to psychological resistance among less technically adept employees. Several staff members interviewed expressed discomfort and lack of confidence in navigating the platform, fearing they might cause errors that could affect citizens' service outcomes. These finding echoes research by Terlizzi (2021), who observed that digital resistance among civil servants is often rooted in inadequate preparation and lack of institutional support during technology rollouts.

On the technical infrastructure side, while the application itself is supported by cloud services such as Amazon Web Services (AWS), field data indicate that infrastructural support at the sub-district level remains suboptimal. Internet connectivity an essential backbone for real-time digital interaction is frequently unstable, particularly during peak hours. Staff reported experiencing delays or disruptions when uploading documents, accessing service dashboards, or responding to citizen queries. Additionally, basic hardware necessary to support a digital administration such as scanners, printers, and backup power sources were found to be limited, outdated, or poorly maintained. In one observation session, a document request via Samagov had to be manually completed because the designated scanner had been non-functional for over two weeks.

This inadequacy in infrastructure not only disrupts workflow but also undermines citizens' trust in digital systems. For instance, one local resident recounted submitting a form via Samagov, only to be called back to the sub-district office because the system had failed to generate a response due to a network outage. Cases like these reinforce public perception that manual services are more reliable, ultimately defeating the purpose of digital transition.

Additionally, no dedicated IT personnel were assigned to the sub-district office on a full-time basis. When technical failures occurred, staff had to wait for assistance from the city's Diskominfo office, which was often delayed due to high service demands across multiple districts. This lack of decentralized technical support severely impairs responsiveness and heightens the risk of service breakdowns during periods of high demand. The issues described above are summarized in the following table 3.

Table 3. Resource Challenges in Samagov Implementation in Samarinda Seberang

Dimension	Findings
Human Resources	Majority of staff untrained in system use; reliance on 1–2 tech-savvy individuals for operational continuity
Training & Capacity Building	No structured training program; informal learning dominates; staff unsure of basic troubleshooting
Psychological Readiness	Resistance among older staff; fear of errors and increased workload
Internet Connectivity	Unstable internet, especially during peak hours; delays in system loading and document submission
Hardware Infrastructure	Limited and outdated equipment (scanners, printers); frequent maintenance issues; no standby replacements
Technical Support Access	No on-site IT personnel; support must be requested from city-level agency; long response times

These findings suggest that the implementation of digital governance tools like Samagov cannot rely solely on application development and cloud hosting arrangements. There must be corresponding investments in human capital development, local technical support structures, and basic infrastructure upgrades to create an ecosystem that supports sustainable digital operations. As Jayanthi (2022) notes, smart city projects often fail not because of technological flaws, but because of mismatches between the technology and the socio-organizational environment into which it is introduced.

To overcome these challenges, the study recommends a multi-tiered resource enhancement strategy. This should include: (1) regular and modular digital literacy training tailored to different user profiles; (2) strategic placement of dedicated IT support staff within each sub-district; (3) budget allocation for upgrading and maintaining digital hardware; and (4) partnership development with internet providers to ensure service stability. Only by addressing these foundational issues can the digital transformation envisioned by the Smart City program be translated into practical, user-centered service improvements on the ground.

C. Disposition

The attitudes, motivation, and level of commitment exhibited by those tasked with executing a policy commonly referred to as the *disposition of implementers* are fundamental to the policy's success, particularly in the

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context of technology-driven transformation in public administration. According to Edward III, even when a policy is well-designed and supported by adequate resources, its successful implementation can falter if frontline personnel lack the willingness or enthusiasm to carry out their responsibilities. In the case of Samagov in Samarinda Seberang, the research uncovered a clear division in how different segments of sub-district staff perceived and responded to the introduction of the digital service platform.

Field data collected through interviews and observations indicate a generational and experiential divide in staff disposition. Younger civil servants, particularly those under 35, generally responded to the Samagov initiative with openness and a positive outlook. Many expressed that the application made service processes more efficient and reduced redundant paperwork. They also perceived the digital platform as a way to modernize the public sector and keep up with evolving citizen expectations. One respondent, a 29-year-old administrative staff member, noted: *"This system makes it easier to track requests. We don't have to dig through piles of paper anymore."* Their motivation was often bolstered by previous exposure to digital tools in education or prior employment settings, which gave them a sense of comfort and familiarity when using Samagov.

In contrast, more senior staff especially those with over 15 years of service or nearing retirement age demonstrated a notably different stance. Many of them voiced apprehensions about the shift toward digital operations. Common reasons included a lack of confidence in using technology, perceived increases in workload due to dual digital-manual operations during the transition phase, and the belief that personal interaction in public service delivery was superior to online alternatives. Several respondents conveyed anxiety that system errors might be blamed on them, further discouraging proactive engagement with Samagov. This resistance often manifested in passive behavior such as avoiding the platform unless absolutely necessary, or delegating tasks to younger colleagues rather than outright opposition. This phenomenon aligns with findings by Jayamuna et al., (2024), who argue that digital transformation in public organizations often faces emotional and psychological resistance stemming from fear of the unknown and disruption of routine.

Such attitudes reflect more than individual reluctance; they reveal deeper institutional inertia and the absence of a targeted change management strategy. The lack of motivational incentives, absence of peer-led mentoring, and failure to incorporate staff feedback into system design have all contributed to a weak sense of ownership among older personnel. This points to the need for leadership not only to issue mandates but also to cultivate an environment that supports learning and adaptation across all experience levels.

Interestingly, some senior staff members expressed a conditional willingness to use Samagov stating that they would feel more confident if comprehensive training, user manuals, and on-demand support were consistently available. This insight reinforces the concept that disposition is not static but can be influenced by institutional interventions that address users' insecurities and build capacity over time. The table 4 below summarizes the disposition trends identified in the field.

Table 4. Staff Disposition Toward Samagov Implementation in Samarinda Seberang

Staff Category	General Disposition	Findings
Younger Employees (<35 yrs)	Positive, adaptive, enthusiastic	Prior tech exposure, comfort with digital tools, efficiency-oriented mindset
Mid-level Staff (35–50 yrs)	Mixed attitudes; some willing but hesitant	Partial familiarity with IT, desire for support/training, concern about workflow changes
Senior Staff (>50 yrs)	Reluctant, resistant, low motivation	Fear of mistakes, tech aversion, preference for face-to-face service delivery
Common Constraints	Lack of support mechanisms, fear of error, inadequate recognition	Absence of training, unclear task expectations, insufficient change leadership

It highlights that disposition is not merely a personality trait but is shaped by organizational culture, leadership behavior, and the support systems surrounding the implementation of new technologies. Therefore, effective digital transformation must go beyond technical deployment and address human factors through structured engagement and targeted behavioral interventions. Public sector change initiatives are more likely to succeed when implementers perceive the change as legitimate, beneficial, and within their capability to manage.

To foster a more inclusive digital transition, the local government could adopt several strategies: (1) implement peer mentoring programs where younger staff support their senior colleagues; (2) provide recognition or incentives for successful digital service delivery; (3) host regular feedback forums to identify usability issues and co-create solutions; and (4) design change communication that empathizes with staff concerns rather than imposing abrupt shifts.

Ultimately, a successful e-government program like Samagov depends not only on its technical soundness but also on the alignment of implementers' attitudes with the policy's objectives. Without cultivating internal champions and reducing psychological barriers, the implementation will remain uneven and vulnerable to collapse under institutional resistance.

D. Bureaucratic Structure

An essential dimension influencing the success or failure of public policy implementation lies in the bureaucratic structure within which the policy is executed. As emphasized by Edward III, the presence of well-defined institutional arrangements including established procedures, clarified roles, and appropriate authority mechanisms is indispensable to translating policy goals into actionable outcomes. In the case of the Samagov application in Samarinda Seberang, the study uncovered

Lisdawati, Paselle , E., & Indarto , K. (2025). Implementation of Smart City Program Policy on The Use of Samagov Application in Digital Sub-District of Samarinda Seberang. Buletin Poltanesa, 26(1). https://doi.org/10.51967/tanesa.v26i1.3389

significant structural weaknesses within the sub-district bureaucracy that have impeded the smooth integration and utilization of the digital system.

One of the most prominent structural limitations observed was the absence of finalized and officially disseminated Standard Operating Procedures (SOPs) specific to Samagov at the time of rollout. While the initiative was framed within the broader Smart City Masterplan of Samarinda, implementation at the sub-district level lacked operational guidelines that could standardize the digital service process. As a result, frontline staff operated with considerable discretion, leading to inconsistencies in service execution. Some services such as digital certificate issuance or online complaints were processed through Samagov, while others, such as domicile statements or business permits, continued to rely on traditional manual processes. This dual-mode system created confusion for both staff and citizens, who were unsure which services could be accessed online and which still required physical presence.

Field interviews revealed that the lack of SOPs caused uncertainty in task delegation. Staff members often expressed uncertainty about who was responsible for managing system inputs, verifying digital documents, or following up on citizen requests submitted online. One mid-level officer remarked, *"Sometimes I handle incoming requests, but other times someone else does it. There's no fixed workflow for the online system."* Such ambiguity not only undermines accountability but also fosters inefficiency and overlaps in tasks, where either multiple staff members work on the same issue or, conversely, tasks are neglected because no one assumes responsibility.

Additionally, the job descriptions of most civil servants at the sub-district office had not been updated to reflect the inclusion of digital service duties. Digital governance responsibilities such as maintaining platform updates, monitoring user feedback, or uploading scanned documents were not formally embedded into performance evaluation or workload planning. Consequently, staff often treated digital duties as secondary tasks or delegated them entirely to younger, more tech-savvy colleagues. This institutional neglect has reinforced the perception that digital services are optional add-ons rather than core elements of public service reform. According to Gaspar et al (2023), such organizational ambiguity is a common stumbling block in public sector reform, especially when bureaucracies are slow to adapt to process innovations.

Moreover, the hierarchical nature of public bureaucracy in Indonesia has complicated the decentralization of decision-making necessary for digital innovation. While sub-district offices are tasked with operating the Samagov platform, many technical and managerial decisions such as user account creation, system modification, and service expansion are still centralized under Diskominfo at the city level. This top-down structure delays responsiveness and reduces the flexibility of sub-district offices to adapt the system based on local needs. One informant reported that a request to add a new service category took over a month due to procedural delays between the sub-district and Diskominfo. The following table 5 summarizes the structural challenges and their consequences as identified through fieldwork.

Table 5. Structural Constraints in Samagov Implementation in Samarinda Seberang

Structural Element	Findings	Consequences
Standard Operating Procedures (SOPs)	No finalized or enforced SOPs for Samagov-related processes	Inconsistent service delivery, varying standards across units
Task Clarity & Role Definition	Unclear distribution of responsibilities; job descriptions not updated	Confusion among staff, task overlaps, neglect of digital duties
Performance Alignment	Digital responsibilities not integrated into performance indicators	Lack of motivation, perception of digital services as non-essential
Decision-making Authority	Centralized technical control at Diskominfo, limited autonomy at sub-district level	Delayed responsiveness, reduced capacity for local innovation
Service Workflow Integration	Partial digitization of services, dual manual-digital systems	User confusion, inefficiency, reduced trust in system reliability

The research indicates that the bureaucratic foundation required to support a sustainable digital transformation is currently underdeveloped in Samarinda Seberang. While technological tools like Samagov offer the potential to improve transparency and efficiency, their effectiveness is largely dependent on the alignment of institutional structures with digital workflows. As Pethig et al., (2021) argue in their theory of digital-era governance, public sector modernization cannot occur in isolation from bureaucratic restructuring; it demands the recalibration of processes, performance management systems, and staff roles to match the logic of digital service delivery.

To address these challenges, several structural reforms are needed. First, sub-district governments must be equipped with officially ratified SOPs for each digital service, with clearly defined procedures and role allocations. Second, staff job descriptions and performance evaluations must incorporate digital responsibilities to ensure institutional ownership and motivation. Third, a decentralized governance model that grants more autonomy to sub-district units particularly for operational decision-making within digital platforms would help improve responsiveness and contextual adaptability. Lastly, internal communication and reporting systems must be realigned to reflect digital integration, ensuring that workflow transitions between manual and digital domains are managed seamlessly.

In conclusion, bureaucratic readiness is a precondition for successful digital governance. Without structural alignment, even the most innovative platforms risk becoming underused or misapplied, as demonstrated in the uneven implementation of Samagov in Samarinda Seberang.

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E. The Implementation Gap in Samagov

The overall findings of this study underscore a pronounced discrepancy between the stated goals of Samarinda's Smart City policy and the actual execution of its digital service components at the grassroots level specifically within the sub-district administration of Samarinda Seberang. Although the introduction of the Samagov application symbolizes a strategic shift toward modernizing public service delivery through digital means, its implementation has been hindered by a series of systemic, institutional, and behavioral shortcomings. These range from weak inter-agency communication to limited human resource readiness, a fragmented bureaucratic framework, and minimal public engagement. This divergence between digital policy design and implementation reality is emblematic of what scholars such as (Zukhrian Warsdapama et al., 2024) describe as the "implementation gap" a common feature in public policy processes where top-level objectives are only partially realized at operational levels.

One of the most striking issues highlighted is the lack of synchronization between technological infrastructure investment and the development of corresponding human capital. While Samarinda's municipal government has made significant strides in constructing and hosting the Samagov platform leveraging cloud services, system architecture, and a web-based interface the capacity of frontline civil servants to use, manage, and promote the application remains critically underdeveloped. This misalignment reflects a broader tendency in many digital government projects across developing regions, where technology is often prioritized over the social and organizational dimensions that ensure its sustainable use (Nafi'ah, 2022).

This imbalance has manifested in several ways. For example, sub-district staff often lacked formal training in using the Samagov system, and responsibilities for digital service tasks were poorly defined. In parallel, older or less tech-literate staff displayed varying levels of resistance, while citizens remained largely uninformed about the application's existence or utility. Such conditions reflect what Frinaldi et al., (2024) identify as the critical importance of "organizational readiness" in digital governance suggesting that digital tools, no matter how advanced, are only as effective as the institutions and individuals charged with operating them.

Importantly, the results reaffirm the relevance of Edward III's policy implementation model in understanding the complexity of e-government adoption. Each of the four variables communication, resources, disposition, and bureaucratic structure was shown to directly affect the outcomes of Samagov implementation. Weak internal and external communication contributed to misunderstandings about platform functionality. Inadequate resources including training, infrastructure, and technical support hampered effective service delivery. Varying staff dispositions toward the digital transition resulted in inconsistent usage, while an outdated bureaucratic structure created confusion, delayed decisions, and reduced accountability.

Furthermore, these findings are not unique to Samarinda. Similar challenges have been observed in other Indonesian municipalities attempting to implement Smart City programs and digital public service systems. Marselia (2022) found that while regional governments across Indonesia are enthusiastic in launching digital platforms, few provide the institutional continuity and grassroots support needed for these platforms to become embedded in daily governance. Likewise, Terlizzi (2021) highlighted how the success of public service reforms depends not only on technological innovation but on leadership, community engagement, and cultural adaptation all of which remain underdeveloped in many local contexts.

Thus, effective realization of Smart City ideals at the sub-district level must be anchored in more than digital platform development (Prayogo, 2022). It demands holistic institutional reform and people-centered strategies. Among the most critical interventions are structured and recurring capacity-building programs for public servants, including digital literacy and adaptive leadership training; the establishment of cross-sector communication frameworks to ensure better coordination between central agencies like Diskominfo and local implementers; and the implementation of community outreach campaigns to inform and empower citizens to utilize digital services. These initiatives must be integrated into the broader governance system rather than treated as add-on features to fulfill technological checklists.

Moreover, reform must also take into account the institutional culture and bureaucratic inertia that often hinder change. Transforming service delivery from a paper-based to a digital system requires not only shifting technology but also reengineering processes, altering performance metrics, and embedding digital thinking into public sector routines. As Pethig et al., (2021) point out in their theory of digital-era governance, effective digital transformation must be accompanied by structural realignment and cultural change at all levels of government.

In summary, the promise of Samagov as a digital public service tool remains significant, but its potential will continue to be constrained without serious attention to institutional alignment, behavioral change, and citizen involvement. A truly transformative smart city initiative is one that treats technology as an enabler rather than a panacea and positions human capacity and institutional adaptability as the foundation of reform.

IV. CONCLUSION

The implementation of the Smart City program in Samarinda, focused on the Samagov application at the sub-district level in Samarinda Seberang. Using Edward III's policy implementation framework, the research showed that the success of digital public service innovations depends not only on technological readiness but also on institutional alignment, human capacity, and procedural coherence. Although Samagov reflects the city's ambition to digitize services, its rollout has been constrained by fragmented communication, limited resources, inconsistent staff commitment—particularly due to

generational divides—and an ill-prepared bureaucratic structure. Many citizens remain unaware of the platform due to poor outreach, while staff struggle with insufficient training, outdated tools, and lack of clear guidelines or support. Nevertheless, opportunities remain: younger staff and digitally aware residents show willingness to engage with the system if supported by targeted reforms. These findings affirm that digital transformation in local governance is a complex process requiring integrated changes in behavior, structure, and institutional culture. Ultimately, Samagov's case reflects broader challenges in Indonesia's decentralized digital governance, where success depends not just on platform deployment but on aligning technology with systemic reform and citizen-centric design.

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