



From institutional readiness to public uptake: Evaluating digital population identity policy implementation in Magetan Regency, Indonesia

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Abstract

Digital Population Identity (IKD) is an Indonesian government policy supporting digital transformation of population administration services under Minister of Home Affairs Regulation No. 72 of 2022. This study analyzes IKD policy implementation at the Department of Population and Civil Registration (Disdukcapil) of Magetan Regency and identifies its supporting and inhibiting factors. A qualitative descriptive approach was employed, grounded in Van Meter and Van Horn's six-variable implementation model: policy standards and objectives, resources, characteristics of the implementing agency, inter-organizational communication, implementer disposition, and economic, social, and political conditions. Data were collected through in-depth interviews with 13 informants, observation, and documentation, analyzed using Miles, Huberman, and Saldana's interactive model. Findings show implementation has generally proceeded well, with clear standards, competent human resources, adequate facilities, and effective inter-agency communication as principal supporting factors. Nonetheless, IKD activation declined sharply, from 79,870 in 2022-2023 to 21,537 in 2024 and 5,276 in 2025, yielding a cumulative rate of only 19.22 percent against a 30 percent national target. This decline stems from a national budget-efficiency policy curtailing outreach (jemput bola) and socialization, compounded by low digital literacy, limited smartphone ownership, data-security concerns following impersonation fraud, and persistent preference for physical documents. The study concludes that despite strong institutional readiness, translating that readiness into sustained public uptake requires a stronger regulatory framework, restored outreach funding, targeted education, and expanded utilization of the IKD application.

Keywords: Policy implementation, digital population identity, e-government, Van Meter and Van Horn model, population administration, Magetan Regency

Introduction

In the current era of digitalization, technological advancement is transforming virtually every industry and dimension of life, including the delivery of public services to citizens. Consistent with the implementation of regional autonomy, the Government of Indonesia continues to encourage the modernization of public service delivery through the application of electronic government (e-government) as part of a broader effort to improve the quality of governance. Through Presidential Instruction No. 3 of 2003^[15], the government established a policy on e-government implementation, affirming that the utilization of information technology in public administration should be directed toward improving the quality, effectiveness, and efficiency of public service. Beyond serving as the legal foundation for digital transformation in the government sector, this instruction reflects the government's broader commitment to bureaucratic modernization through electronic, citizen-responsive public service.

This technological advancement indirectly compels government to adapt in order to deliver excellent service to the public, reshaping nearly every dimension of bureaucratic practice and generating new innovation and opportunity in public service delivery. This shift carries substantial potential to improve service quality, moving bureaucracy from manual toward fully digital service delivery, regarded as more effective and efficient, though realizing this potential requires active collaboration among stakeholders from the central to the regional level. According to data compiled by the Directorate General of Population and Civil Registration (Dirjen Dukcapil) as of the end of June 2025, Indonesia's population stood at 286,693,693, positioning it

among the most populous countries in the world; amid such large-scale demographic growth, technology adoption can substantially ease government's capacity to deliver service relative to conventional, manual methods.

Government bears an obligation to deliver quality public service as a form of fulfilling every citizen's rights, an obligation consistent with Law No. 25 of 2009 on Public Service, which provides the legal foundation for service delivery, aims to establish legal certainty for both citizens and service providers, improve public-service quality and performance, and realize clean, transparent, and accountable governance. Within public administration scholarship, the digitalization of public service can be understood as a strategic instrument for improving service quality while establishing an effective and efficient bureaucracy; digitalization can significantly shorten service processes and reduce the risk of service error, rendering digital innovation in population administration service an increasingly unavoidable governmental necessity.

Population identity constitutes a fundamental requirement for every citizen, serving as the basic evidence of an individual's legal recognition before the state. Through population identity, the state can provide legal certainty and public service while ensuring that civil rights are fulfilled; without valid identity, a citizen faces difficulty accessing public services such as education, health, social assistance, and economic activity. Slow population administration service accordingly has a direct impact on citizens' enjoyment of their rights as citizens, demanding that government develop an effective, efficient, and adaptive population administration system. To ease service delivery through the Directorate General of Population and Civil

Registration, government introduced the Digital Population Identity (IKD) application as a service innovation accessible to citizens across regions, intended to ease service delivery and address the queuing and processing-time problems that have long constituted a core service challenge in many localities.

Consistent with Minister of Home Affairs Regulation No. 72 of 2022, IKD aims to improve the effectiveness and efficiency of population administration service through the utilization of digital technology, with the regulation simultaneously functioning as the legal umbrella for IKD implementation as a substitute for, or complement to, the physical electronic identity card (KTP-el). Given that the physical procurement of KTP-el blanks is limited and requires substantial budget, periodic blank shortages have historically left some citizens unable to obtain a physical KTP-el; IKD is intended to help citizens hold identity without requiring a physical document, instead possessing population identity in digital form, accessible through the smartphone that nearly every citizen now owns, eliminating the need to carry physical population documents since all relevant services can be accessed through the IKD application, which contains not only an individual's population documents but also document-related services, thereby easing citizens' access and use of population administration service. Through the IKD application, government can additionally address one of the most significant challenges in population service, namely unequal digital service delivery in hard-to-reach areas.

Digital Population Identity constitutes one form of public service innovation developed as an implementation of e-government in the population administration domain. IKD implementation aims to improve service quality through a process that is more effective, efficient, transparent, and accountable, while easing citizen access and strengthening the protection of population data. This policy additionally supports the simplification of bureaucratic process as part of digital transformation within government. Through the IKD application, citizens can access various population documents and administrative services digitally using a smartphone, rendering service more practical and accessible.

The Disdukcapil of Magetan Regency serves as the extension of central government in delivering population-document service to the community, particularly within Magetan Regency. Magetan's Disdukcapil has introduced and implemented IKD activation, requiring activation from all Magetan residents and civil servants alike to ease the delivery of population-document service and accelerate the digitalization of population service. In practice, however, a substantial number of Magetan residents have not yet activated IKD: of Magetan's 554,955 KTP-mandatory residents, only 106,683, or 19.22 percent, had activated IKD as of the study period, against a national target of 30 percent of the KTP-mandatory population.

Table 1: Number of IKD Activations in Magetan Regency by Year

Year	Number of IKD Activations
2022 and 2023	79,870
2024	21,537
2025	5,276
Total	106,683

Source: Disdukcapil Kabupaten Magetan (2025).

Table 1 reveals a striking pattern: rather than accelerating, annual IKD activation in Magetan has declined sharply since the policy's introduction, from 79,870 activations in

the combined 2022-2023 launch period to only 21,537 in 2024 and a mere 5,276 in 2025. Against the national target of 30 percent IKD activation among the KTP-mandatory population, Magetan's cumulative achievement of 19.22 percent (106,683 of 554,955 residents) falls substantially short. This low and declining activation rate directly constrains the optimal utilization of the IKD application, impeding the broader digitalization of population documentation, sustaining public dependence on physical documents, and limiting the flexibility of service delivery the policy was designed to achieve.

The comparatively modest achievement of IKD activation in Magetan Regency indicates that policy implementation has not yet fully realized its intended outcome. This condition leaves a portion of the community unable to benefit from the various services available through the IKD application, including access to population administrative documents and digital population biodata. The low activation rate is thought to stem from suboptimal communication and public socialization regarding the benefits and procedures of the application, compounded by the emergence of various fraud schemes impersonating the Department of Population and Civil Registration during the activation process, which has generated public doubt and eroded trust, in turn dampening public interest in IKD activation.

Digital Population Identity functions as a tool capable of easing citizens' access and delivering substantial benefit where policy implementation proceeds according to plan; conversely, where implementation falters, a cascading effect can worsen conditions, from continued dependence on physical documents to public scrutiny of the budget invested in application development, a particularly sensitive concern given the current government's emphasis on budget efficiency, alongside impeded service delivery and eroded public trust in government. Building on these considerations, this study is directed at analyzing the implementation of the Digital Population Identity policy at the Disdukcapil of Magetan Regency using the model developed by Van Meter and Van Horn, encompassing six variables: policy standards and objectives, resources, characteristics of the implementing agency, inter-organizational communication and implementer activity, economic, social, and political conditions, and the disposition or attitude of implementers. This approach is expected to yield a clear picture of the implementation's success level together with the factors shaping it.

Based on this background, the research problems are formulated as follows: how has the Digital Population Identity policy been implemented based on Minister of Home Affairs Regulation No. 72 of 2022 at the Disdukcapil of Magetan Regency, and what factors support and hinder that implementation? Correspondingly, this study aims to analyze and describe IKD policy implementation at Magetan's Disdukcapil under Minister of Home Affairs Regulation No. 72 of 2022, and to analyze and describe the supporting and inhibiting factors shaping that implementation.

Literature Review

1. Public Policy

According to Anderson (2015) ^[2], public policy is a series of actions designed by government or an authorized institution to achieve particular objectives in resolving problems faced by society, understood not as a single, standalone decision but as a continuous course of action within the process of government administration. Friedrich, as cited in Subarsono (2011) ^[30], similarly frames policy as a course of action

designed by individuals, groups, or government to achieve particular objectives suited to the environmental conditions faced, meaning policy is not merely a decision but a directed guide to action for resolving a problem and realizing an established goal. Eyestone (1971)^[12] regards public policy as a form of interaction between government and the environment in which the policy is implemented, indicating that policy cannot be separated from prevailing social, economic, and political conditions, such that government must weigh various environmental factors for a policy to effectively address public need. Nugroho (2017)^[24] reinforces this view, holding that public policy is a government's strategic decision to resolve public problems while realizing the objectives of state administration, and that policy success is determined not only at the formulation stage but through the ongoing process of implementation, management, and evaluation.

According to Dye (1978) and Jones (1984)^[8, 17], policy formulation proceeds through several stages: problem identification, recognizing the public issue requiring government attention; policy formulation, determining alternative solutions; policy adoption, selecting and establishing a formulation as official policy; policy implementation, executing the policy through relevant institutions; and policy evaluation, assessing the extent to which the policy achieves its objectives. Dunn, as cited in Pasolong (2007)^[7], further identifies five interrelated components of public policy analysis: the policy problem, the condition reflecting unmet public need or value requiring government intervention; policy alternatives, the range of actions government may consider in resolving an identified problem; policy action, the execution of a selected alternative; policy outcomes, the changes or consequences arising after a policy is implemented; and policy utility, the extent to which the policy achieves its established objectives and delivers benefit to society.

2. Policy Implementation

Policy implementation is the stage at which a formulated policy is executed so that its established objectives can be realized in concrete action. Winarno (2012) holds that implementation is the stage determining whether a policy's objectives are ultimately achieved, since a well-formulated policy produces no result absent effective execution consistent with its established aims. Subarsono (2013)^[31] reinforces this view, describing implementation as the process of executing decisions established by government, whether in the form of law, regulation, or executive decision, undertaken to resolve public problems and realize policy objectives. Grindle (1980)^[13] frames implementation as the process of transforming an established decision or policy into concrete action, connecting policy planning with program execution so that designed objectives can be genuinely realized, while Nugroho (2017)^[24] similarly explains that policy implementation is the process of executing public policy through resource management, managerial practice, and control mechanisms, cautioning that implementation in Indonesia continues to face challenges including suboptimal inter-institutional coordination, complex bureaucracy, and limited apparatus capacity.

Several implementation models offer complementary perspectives on the factors shaping implementation success. Pressman and Wildavsky (1973)^[28] describe implementation as a complex interactive process of establishing goals and the actions needed to achieve them, given the involvement of numerous parties in execution;

implementation failure, in their view, often stems not from poor policy design but from the sheer number of parties whose decisions must align during the execution process. Mazmanian and Sabatier (1983)^[21] hold that implementation success depends on three variable groups: the tractability of the problem being addressed, since more complex problems present greater implementation challenges; the policy's capacity to structure implementation through sound initial design; and non-statutory environmental variables, including political support, socioeconomic condition, inter-agency coordination, and public acceptance. Lipsky's (1980)^[19] street-level bureaucracy model holds that implementation success is substantially shaped by frontline officials who interact directly with the public and who exercise discretion in executing policy, positioning them as direct agents of implementation outcomes, a view complemented by Elmore's (1979)^[10] backward-mapping model, which holds that implementation should be analyzed from the bottom level upward, focusing on the field-level actors who determine policy success, both models converging on what is commonly termed a bottom-up approach.

Grindle's (1980)^[13] political and contextual model, presented in *Politics and Policy Implementation in the Third World*, holds that implementation success is substantially shaped by political interest, power holders, and socioeconomic condition, encompassing two central variables: content of policy, the substance of the policy itself, and context of implementation, the external and political factors determining implementation success. Matland's (1995)^[20] ambiguity-conflict model explains that implementation success depends on the level of conflict and clarity inherent in a policy, since ambiguity can generate multiple interpretation during execution, while Etzioni's (1967)^[11] mixed-scanning model combines rational-comprehensive and incremental approaches, holding that strategic decisions should be determined comprehensively while implementation proceeds incrementally to achieve success. Edwards III (1980)^[9] similarly holds that implementation success depends not only on formulation quality but on the effectiveness of the execution process itself, identifying four interrelated variables: communication, the process of conveying policy information to all parties involved in execution, with clear, consistent, and comprehensible delivery easing both implementer and public understanding of policy objectives and mechanisms; resources, encompassing human resources, budget, facilities and infrastructure, information, and authority, all necessary for optimal implementation; disposition, the attitude, commitment, and willingness of implementers to execute the policy, with implementer support and integrity shaping implementation consistency; and bureaucratic structure, the organizational arrangement, task division, authority, coordination, and working procedure guiding execution, with a clear, well-organized structure supporting implementation effectiveness while minimizing obstacles.

3. Digitalization of Public Service

Digitalization of service refers to the utilization of technology in service delivery to citizens, intended to accelerate and simplify public-service processes, transitioning from manual toward digital delivery to create a more effective, efficient, and transparent service ecosystem. Brennen and Kreiss (2016)^[5] explain that digitalization is the process of converting information, documents, and work processes into digital form so that they can be processed,

stored, and disseminated using digital technology, a transformation concerning not merely a change in media but a change in how organizations conduct business processes and deliver service to users. Mergel, Edelmann, and Haug (2019) ^[22] similarly describe digitalization in the public sector as a transformation process undertaken by government organizations through the utilization of digital technology to improve service quality, directed toward realizing public service that is more effective, efficient, transparent, and better able to meet public need. In the Indonesian context, digitalization of public service is realized through the application of e-government or the Electronic-Based Government System (SPBE), understood as the process of shifting from conventional toward technology-based service delivery, aimed at improving service quality, expanding accessibility, simplifying service process, strengthening information openness, and improving the overall public-service experience.

4. Digital Population Identity

Information-technology development has driven digital transformation across various sectors, including public service delivery. The utilization of digital technology constitutes one government strategy for improving service quality through a process that is faster, more effective, efficient, transparent, and accountable, forming part of the broader bureaucratic-reform agenda aimed at realizing modern, citizen-oriented governance. Indrajit (2004) ^[14] defines digitalization of public service as the utilization of information and communication technology to support more effective, efficient, transparent, and accountable governance, a view consistent with Nugroho's (2017) ^[24] explanation that digital transformation in public service is directed toward simplifying procedure, accelerating service process, and strengthening accountability through integrated electronic systems.

Under Minister of Home Affairs Regulation No. 72 of 2022 on Standards and Specifications for Hardware, Software, and Electronic Identity Card Blanks, and the Implementation of Digital Population Identity, IKD is defined as electronic information representing population documents and residents' returned data in digital form, accessible through electronic devices. Sugiarto (2023) ^[32]

similarly defines IKD as a technology-based population administration service innovation enabling resident identity to be stored and used electronically to support faster, more secure, and more integrated public service delivery. In simple terms, Digital Population Identity is an application transforming the electronic identity card and various other population administration products into digital form, accessible on residents' respective electronic devices while guaranteeing personal-data security and easing public-service delivery, a capability of particular relevance in addressing uneven service delivery for residents in hard-to-reach locations.

IKD implementation aims to develop technology-based population administration service capable of improving public-service effectiveness, efficiency, and quality. Through the IKD application, citizens can access various population documents practically using an electronic device at any time and location; beyond providing a digital-format electronic identity card, the application integrates other population documents, including Indonesian citizen biodata, the family card, the certificate of change of domicile, and the birth certificate, while also enabling submission of other population-document applications. This constitutes part of the broader bureaucratic-reform and e-government agenda, with the IKD application expected to drive both bureaucratic reform and digital transformation within government, easing population-document processing and enabling more optimal public service, while supporting Indonesia's national digital-transformation program and electronic-based government system (SPBE). IKD implementation is governed under several regulations, including Law No. 24 of 2013 on Population Administration, as an amendment to Law No. 23 of 2006; Minister of Home Affairs Regulation No. 72 of 2022 on the Implementation of Digital Population Identity; Presidential Regulation No. 95 of 2018^[27] on the Electronic-Based Government System (SPBE); and Presidential Instruction No. 3 of 2023^[16] on Accelerating Digital Transformation and Public Service.

5. Prior Research

Table 2 summarizes prior studies most directly relevant to this study's focus on IKD policy implementation.

Table 2: Summary of Prior Studies on Digital Population Identity Policy Implementation

Study	Location / Focus	Key Finding
Aprilia & Wahyudi (2023) ^[31]	Balai RW Kelurahan Kalirungkut, Surabaya	IKD activation proceeded smoothly given adequate supporting infrastructure and implementer readiness
Alea (2024)	Blitar	IKD activation remained comparatively low, though the policy generated administrative efficiency; human-resource capacity remained inadequate
Dibah (2024) ^[6]	Bukittinggi City	Documents IKD implementation processes and challenges specific to the Bukittinggi context
Rifqi (2025) ^[29]	Pekanbaru	Identifies substantial implementation obstacles and recommends stronger cross-sectoral integration
Anwar & Rayhan (2025)	National level (multiple regions)	Many regions face activation challenges; socialization and outreach campaigns and human-resource training are essential to improving uptake
Lestari (2025) ^[18]	Multiple regions	IKD innovation improves service quality, though socialization and activation constraints remain dominant obstacles
Firmansyah (2025)	Multiple regions	Low activation rates require stronger socialization intervention and additional human-resource support
Braharjanto (2025) ^[4]	Multiple regions	Activation improves significantly when combined with direct, in-person socialization at high-traffic public locations
Andriani (2025)	Multiple regions	Frames the IKD application as an instrument supporting the principles of good governance
Zuhra (2024) ^[38]	Lhokseumawe City (Edward III model)	Identifies substantial obstacles in communication and bureaucratic structure using Edward III's implementation framework

Source: Synthesized by the author from the reviewed literature.

This study differs from the studies summarized in Table 2 in several respects, including the specific activation figures,

population characteristics, and field conditions observed in Magetan Regency relative to other localities, which are

expected to generate distinct findings. This study specifically examines IKD policy implementation under Minister of Home Affairs Regulation No. 72 of 2022, a comparatively recent regulation governing digital-based population administration, with a focus not confined to assessing implementation compliance with the regulation's provisions but extending to identifying the factors shaping implementation and analyzing the impact of IKD policy application at the Disdukcapil of Magetan Regency.

6. Conceptual Framework

Building on the Van Meter and Van Horn (1975) ^[37] model, this study analyzes IKD policy implementation across six variables: policy standards and objectives, the clarity of the policy's aims and success indicators; resources, encompassing human resources, budget, and facilities and infrastructure; characteristics of the implementing agency, encompassing organizational structure, task division, and working mechanism; inter-organizational communication and enforcement activity, encompassing socialization, coordination, and communication between the regional implementing agency and central government; the disposition of implementers, encompassing apparatus understanding, commitment, and readiness to deliver service; and economic, social, and political conditions, encompassing public acceptance, socioeconomic capacity, and the political environment surrounding implementation, including budget policy. Van Meter and Van Horn's model follows a top-down approach, holding that implementation success originates from the clarity of objectives and standards established by policymakers, subsequently translated by implementing organizations at each level; within this approach, implementer understanding of policy objectives constitutes an essential factor for implementation to proceed consistent with formulated goals. As Subarsono (2013) ^[31] affirms, this model is well suited to analyzing public policy involving multiple actors, implementing organizations, and diverse environmental conditions shaping the implementation process, providing a comprehensive picture of both the determinants of success and the sources of obstacle in policy execution.

Research Methods

1. Research Approach

This study employed a qualitative approach with a descriptive research design. Sugiyono (2013) ^[33] explains that qualitative research is an approach used to understand a phenomenon comprehensively based on naturally occurring conditions, such that reality is regarded as dynamic and not fully explicable through relationships among variables alone. Abdussamad (2021) ^[1] similarly describes qualitative research as conducted under natural conditions, with the researcher functioning as the principal instrument, data collected through triangulation, analysis conducted inductively, and results emphasizing the meaning of phenomena over generalization. This approach was selected because it is consistent with the research objective of obtaining an in-depth understanding of IKD policy implementation at the Disdukcapil of Magetan Regency, drawing on the perspectives of both implementing apparatus and the community as service users, and enabling the researcher to identify the range of phenomena emerging during implementation, including obstacles encountered, field-level implementation dynamics, implementer attitude toward the policy, inter-organizational communication effectiveness, resource adequacy, and the influence of social, economic, and political conditions on IKD

implementation success, analyzed with reference to Van Meter and Van Horn's (1975) ^[37] policy implementation model.

2. Research Focus

The research focus was directed at IKD policy implementation under Minister of Home Affairs Regulation No. 72 of 2022 at the Disdukcapil of Magetan Regency, examined across Van Meter and Van Horn's (1975) ^[37] six implementation variables: the application of IKD standards and objectives, examining the consistency of implementation with the regulation's provisions and the clarity of standards, objectives, targets, and success indicators; resource availability, encompassing human-resource competency, supporting facilities and infrastructure, and budget support; communication and coordination, encompassing Disdukcapil's role in IKD socialization, inter-divisional coordination, and communication between the regional agency and central government; the disposition or attitude of policy implementers, assessing apparatus understanding of the policy and readiness to deliver service; social conditions and community response, focusing on public acceptance, obstacles, and perception of IKD use; and the supporting and inhibiting factors of IKD implementation, both internal and external, together with efforts to manage the obstacles encountered.

3. Research Site

This study was conducted at the Department of Population and Civil Registration (Disdukcapil) of Magetan Regency, selected on several grounds: the Disdukcapil is the institution responsible for implementing IKD policy in Magetan Regency; Magetan is a regency that has implemented the IKD activation program, rendering it a suitable object for examining policy execution; the research site provided access to informants directly involved in IKD implementation, whether as implementers or as authorized officials; and the Disdukcapil, as the regional apparatus organization delivering population administration service in direct interaction with the community, occupies a strategic position in IKD policy implementation.

4. Data Sources

This study drew on primary and secondary data. Primary data, obtained directly from the first-hand source, were collected through in-depth interviews with informants involved in IKD policy implementation at Magetan's Disdukcapil, complemented by direct observation of policy implementation at the research site. Secondary data, obtained indirectly through existing sources, were drawn from documents, reports, statutory regulation, archives, and other relevant supporting materials pertaining to IKD policy implementation, including IKD activation figures, application-user numbers, performance reports, and other documents relevant to the research objective.

5. Informants

Informants were selected through purposive sampling, a deliberate selection technique based on specific considerations. Selected informants were those possessing knowledge, experience, and direct involvement in IKD policy implementation, capable of providing information relevant to the research objective and thereby ensuring comprehensive, accountable data. Specific informant criteria included holding a technical policymaking role or direct authority in the IKD activation and service process;

possessing knowledge of IKD procedure and mechanism; and, for civil-servant or contract-employee informants at the Disdukcapil, having served for at least approximately one year, while community informants were required to have received prior information regarding Digital Population Identity. Table 3 presents the resulting informant composition.

Table 3: Composition of Research Informants

No.	Informant	Number
1	Head of the Disdukcapil, Magetan Regency	1
2	Head of the PIAK Division	1
3	Head of the Population Registration Service Division	1
4	Junior Policy Analyst, Population Registration Service Division	1
5	Junior Population Database Administrator, PIAK Division	1
6	Head of the General Affairs and Personnel Sub-division	1
7	Service Operator / Activation Officer	1
8	Community members	6
	Total	13

Source: Field data, compiled by the researcher (2026).

6. Data Collection Technique

Data were collected through three techniques selected to ensure accurate, comprehensive, and relevant information. Interviews, involving direct interaction between researcher and informant to explore and extract information, were conducted following Sugiyono's (2022) ^[34] characterization of interviewing as a meeting of two persons exchanging information and ideas through question and answer to jointly construct meaning around a given topic. Observation, following Sugiyono (2022) ^[34], involved direct observation of the object or phenomenon under study to obtain information consistent with actual field conditions; in this study, observation focused on IKD policy implementation at Magetan's Disdukcapil, with the researcher recording facts, conditions, and phenomena related to implementation, including service mechanisms, staff-community interaction, and field-level obstacles, subsequently used to reinforce interview and documentation findings. Documentation involved the use of documents, archives, and written evidence related to the research object to complement observational and interview data, drawing in this study on activity photographs, official documents, program-implementation reports, IKD activation statistics, and statutory regulation relevant to IKD policy implementation at Magetan's Disdukcapil.

7. Data Analysis Technique

This study employed a qualitative descriptive approach in data processing and presentation. Sugiyono (2022) ^[34] describes data analysis as the activity of organizing, categorizing, and interpreting data obtained from various sources to produce readily understandable information capable of answering the research problem. In qualitative research, data analysis proceeds continuously from the data-collection stage through the completion of the study, enabling the researcher to develop a comprehensive understanding of the phenomenon under investigation. This study followed the interactive analysis model developed by Miles, Huberman, and Saldana (2014) ^[23], selected for its capacity to provide a systematic account of the data-processing stages in qualitative research, comprising data collection, gathering information systematically and in

depth through interview, observation, and documentation, and their combination, known as triangulation, consistent with the research focus; data condensation, the process of selecting, focusing, simplifying, abstracting, and transforming initial data derived from field observation, interviews, and research documents into a more structured, analyzable form; data display, organizing research findings into systematic form to clarify relationships among data, presented predominantly through narrative description supported by tables, figures, or diagrams as needed; and conclusion drawing and verification, drawing conclusions based on the analysis of data on IKD policy implementation at Magetan's Disdukcapil, verified through triangulation of multiple data sources to ensure that resulting conclusions genuinely reflect field-level implementation conditions and their relationship to the six Van Meter and Van Horn (1975) ^[37] implementation variables.

Results

1. Institutional Profile

Magetan Regency is located in East Java Province, bordering Ngawi Regency to the north, Ponorogo and Wonogiri Regencies to the south, Karanganyar Regency to the west, and Madiun City and Madiun Regency to the east. IKD implementation is guided by Minister of Home Affairs Regulation No. 72 of 2022 on Standards and Specifications for Hardware, Software, and Electronic Identity Card Blanks, and the Implementation of Digital Population Identity, which forms the legal foundation for activation, management, utilization, and service delivery of IKD to the community, such that the entire IKD implementation process at Magetan's Disdukcapil proceeds consistent with this regulatory provision.

The Disdukcapil of Magetan Regency, operating under Regent Regulation No. 80 of 2021^[25] on the Position, Organizational Structure, Task Description and Function, and Working Procedures of the Department, bears responsibility for formulating technical policy in population administration and civil registration, administering population registration and civil registration affairs, managing population data and documents, developing information and technology systems in support of service quality, issuing population documents and information certificates, providing population administration information services, and conducting mentoring, monitoring, oversight, and control of population administration and civil registration service delivery.

2. Policy Standards and Objectives

Field data indicate that IKD's standard operating procedure has been prepared centrally and disseminated to regional implementers. As one implementing official explained regarding the application's standard requirements, informants consistently affirmed that a resident must first have completed KTP-el recording (aged 17 years or older, or having been married), possess a smartphone running Android version 8.0 or higher or iOS version 11 or higher, and hold an active phone number and email address. A senior official further noted that the application's SOP was prepared from the outset by central government, such that Magetan's Disdukcapil, as implementer, need only execute and develop it further; in this regard, the Disdukcapil has expanded document service to the district (kecamatan) and village (desa) level, enabling residents to obtain population-document service at their nearest district or village office rather than traveling to the regency capital. To ease public understanding of these standards, the Disdukcapil has

additionally conducted socialization through social media, extending reach to a broader public audience.

3. Resources

Resource adequacy, encompassing human resources, budget, and facilities and infrastructure, emerged as a central theme in this study's findings. Regarding human resources, the Head of the Population Registration Service Division explained that Magetan's Disdukcapil employs 63 staff in total, of whom 20 focus on service delivery at the main office, five are assigned to the Integrated Service Mall (Mal Pelayanan Publik, MPP), and 17 serve as district-level operators, supplemented by village-level operators drawn from village staff. While village operators initially lacked population-administration background, the Disdukcapil has conducted repeated technical guidance (*bimbingan teknis*) sessions to train them in basic population-document service and IKD activation and registration procedures. Table 4 presents the educational-attainment profile of Disdukcapil staff supporting this account.

Table 4: Educational Attainment of Disdukcapil Staff, Magetan Regency

No.	Educational Level	Number of Staff
1	Master's degree	4
2	Bachelor's degree / Diploma IV	34
3	Diploma III	12
4	Senior secondary or equivalent	13
	Total	63

Source: Personnel Division, Disdukcapil Kabupaten Magetan (2026).

A service operator interviewed for this study confirmed that new operators consistently receive technical guidance and mentoring during their initial assignment, released from direct supervision only once deemed to have mastered the service process, with routine monitoring conducted by the Head of Department and division heads across both the main office and district-level service points to ensure procedural compliance. The Acting Head of Department corroborated this account, affirming that current staffing is adequate and competent to support IKD program success, having received training in application operation, with routine monitoring and evaluation conducted from the village through district level to ensure service quality. Overall, informants converged on the assessment that Disdukcapil's human resources are adequate and competent to support IKD implementation, notwithstanding the presence of some staff holding only senior-secondary qualifications and village operators initially lacking population-administration background, both groups having since received technical guidance sufficient to support quality service delivery under routine monitoring and evaluation.

Regarding budget, however, a markedly different picture emerges. The Head of the PIAK Division explained that no dedicated budget line exists for IKD-specific implementation, since the application server is centrally hosted and requires no local maintenance expenditure; the only relevant allocation has been for local official travel supporting proactive outreach (*jemput bola*) activation service, an allocation she described as already modest and further constrained by the current national budget-efficiency policy, compelling a reduction in *jemput bola* service frequency relative to prior years. This account was corroborated by the Head of the Population Registration Service Division and the Acting Head of Department, both

of whom confirmed that IKD-related budget allocation is confined to local official travel for outreach activation and has been curtailed under the efficiency policy, with the Acting Head noting directly that budget cuts have necessarily reduced *jemput bola* implementation. Regarding facilities and infrastructure, by contrast, informants uniformly reported adequate provision: computers, the SIAK application, and stable network connectivity, supported by cooperation with the regional communications and informatics office and a telecommunications provider, alongside a dedicated, rarely disrupted server supporting the SIAK system. Overall, while Magetan's Disdukcapil demonstrates strong resource adequacy in human resources and infrastructure, the national budget-efficiency policy constraining outreach-activation funding constitutes a significant resource-related obstacle to IKD implementation.

4. Characteristics of the Implementing Agency

The characteristics of the implementing organization concern bureaucratic structure and task division supporting implementation success. Field data indicate that Magetan's Disdukcapil possesses a clear organizational structure and task division consistent with its governing regulation, with each division and sub-division holding defined responsibility for specific aspects of IKD implementation, from policy formulation and data management to direct service delivery, a structural clarity informants described as supporting coordinated, consistent implementation across the main office, district service points, and village-level operators.

5. Disposition of Implementers

Disposition, or implementer attitude and commitment, emerged as a generally positive but not unqualified finding. Field observation and interview data indicate that Magetan's Disdukcapil has demonstrated strong commitment to supporting IKD implementation, evidenced by the establishment of activation service across all districts and villages throughout the regency and sustained efforts to increase activation numbers. Notwithstanding this commitment, several critical observations emerged from implementers themselves: officials assessed that IKD utilization remains suboptimal owing to the absence of a stronger regulatory framework governing and supporting its utilization, together with continuing limitations in application features that constrain fuller service delivery. In response, implementers reported actively pursuing consultation and coordination with relevant parties to address these constraints. Overall, the disposition indicator can be assessed favorably, given implementers' sustained commitment to supporting the policy, notwithstanding the specific obstacles and critiques raised regarding the application's regulatory support and functional scope.

6. Inter-Organizational Communication and Enforcement Activity

Communication constitutes an essential element of policy implementation, without which a policy cannot proceed. Field data indicate that communication between Magetan's Disdukcapil and the Directorate General of Population and Civil Registration has been well established, conducted through multiple communication media alongside direct consultation and coordination; central government, in turn, has provided both technical and non-technical support in the form of training, technical mentoring, and periodic system updates, reflecting a functioning coordination relationship between regional implementer and central policy authority.

Communication with the community, however, presents a more mixed picture: while socialization has been conducted, a number of community members remained unaware of the IKD application's existence, particularly members of the general public with more limited access to broad information relative to civil servants. This finding indicates that while inter-institutional communication functions effectively, communication directed at the general public requires further strengthening to achieve more even, comprehensive reach.

7. Economic, Social, and Political Conditions

Field data indicate that Magetan's community is generally receptive to the existence of the IKD application, with most residents willing to undergo activation; nonetheless, concern persists regarding personal-data security and the proliferation of fraud schemes impersonating IKD activation processes. Economically, although activation and service delivery incur no direct cost, some community members

reported reluctance given the need to purchase a new smartphone meeting IKD's minimum specification requirements, a significant obstacle given the comparatively modest income levels prevailing in Magetan Regency. Politically, budget-efficiency policy has generated friction affecting the implementation of socialization and jemput bola outreach activity, thereby constraining policy execution. These findings indicate that social, economic, and political conditions constitute substantial challenges for IKD implementation, with the economic dimension, specifically device-ownership limitation, and constrained regional budget capacity emerging as particularly consequential constraints.

8. Supporting and Inhibiting Factors

Table 5 summarizes the principal factors identified as supporting IKD policy implementation, while Table 6 summarizes the principal inhibiting factors.

Table 5: Factors Supporting IKD Policy Implementation at Magetan's Disdukcapil

No.	Supporting Factor	Description
1	Competent human resources	Staff possess adequate competency in their respective roles, reinforced by technical guidance and mentoring
2	Adequate facilities and infrastructure	Computers, the SIAK application, stable network connectivity, and dedicated server capacity support implementation
3	High implementer commitment	Disdukcapil leadership and staff demonstrate sustained commitment to supporting the policy
4	Clear organizational structure and task division	Defined roles and responsibilities across divisions and sub-divisions support coordinated execution
5	Consistent SOP application	Centrally prepared standard operating procedures provide a uniform implementation reference
6	Technical support from central government and local government	The Directorate General of Population and Civil Registration and district/village governments provide sustained technical assistance
7	Civil-servant support	Mandatory ASN activation has helped build broader public awareness of the application

Source: Field interviews and observation, compiled by the researcher (2026).

Table 6: Factors Inhibiting IKD Policy Implementation at Magetan's Disdukcapil

No.	Inhibiting Factor	Description
1	Budget limitation due to the efficiency policy	National budget-efficiency policy has curtailed funding for jemput bola outreach activation
2	Suboptimal application features and utilization	Limited functional scope constrains fuller service delivery through the IKD application
3	Insufficiently intensive socialization	Public awareness of the application remains uneven, particularly among non-civil-servant residents
4	Limited ownership of compatible smartphones	Device-specification requirements exceed what some residents can afford
5	Community economic condition	Comparatively modest household income constrains device-acquisition capacity
6	Absence of a stronger regulatory framework for IKD utilization	Limited regulation governing the application's broader functional use constrains optimal utilization
7	Public concern over data security and fraud	Impersonation fraud schemes have eroded public trust and dampened activation interest
8	Public preference for physical documents	A substantial share of the community continues to prefer physical over digital documentation
9	Limited personnel for service delivery	Current staffing, while competent, requires reinforcement to maximize service reach

Source: Field interviews and observation, compiled by the researcher (2026).

Discussion

1. Institutional Readiness amid Declining Public Uptake: A Central Paradox

Read through Van Meter and Van Horn's (1975) ^[37] six-variable framework, this study's central and most analytically significant finding is a pronounced divergence between strong institutional readiness and a sharply declining activation trend. On four of the six variables, policy standards, resources (human and infrastructural), organizational characteristics, and inter-institutional communication, Magetan's Disdukcapil demonstrates conditions consistent with successful implementation: clear, centrally standardized procedures; adequate, well-trained staffing supported by ongoing technical guidance; sufficient

facilities and stable digital infrastructure; and functional coordination with the Directorate General of Population and Civil Registration. Yet activation figures moved in the opposite direction, falling from 79,870 in the 2022-2023 launch period to 21,537 in 2024 and only 5,276 in 2025, a decline of over 93 percent from peak to trough. This pattern indicates that Van Meter and Van Horn's implementation variables are not uniformly weighted in their effect on outcomes: in this case, supply-side institutional capacity proved necessary but insufficient, while demand-side conditions, resources directed at public-facing outreach, and the economic, social, and political environment surrounding public uptake, functioned as the binding constraint on policy success.

2. The Budget-Efficiency and Outreach-Funding Nexus

The declining activation trend traces most directly to a specific, well-documented causal chain: national budget-efficiency policy curtailed the resource allocation supporting jemput bola outreach and public socialization, precisely the activities most capable of converting institutional readiness into public activation. This finding refines Van Meter and Van Horn's resources variable by illustrating that resource adequacy must be assessed not only in aggregate terms, whether an agency has sufficient staff and infrastructure, but disaggregated by function, since an agency can be simultaneously well-resourced for internal service delivery and severely under-resourced for the outward-facing activities (outreach, socialization) that drive policy uptake among a dispersed rural population. This finding is consistent with Braharjanto's (2025) ^[4] observation that activation improves substantially when combined with direct, in-person socialization at high-traffic locations, and with Anwar and Rayhan's (2025) finding that socialization and outreach campaigns constitute an essential, rather than supplementary, implementation activity.

3. Economic, Social, and Political Conditions as the Binding Constraint

Beyond the budget-efficiency mechanism, this study's findings on device-ownership limitation, public concern over data-security and fraud, and persistent preference for physical documentation collectively indicate that Van Meter and Van Horn's economic, social, and political conditions variable operates as the most consequential constraint on IKD implementation in Magetan's specific socioeconomic context. This finding aligns with Dibah's (2024) and Alea's (2024) ^[6] observations of comparatively low activation despite administrative efficiency gains elsewhere in East Java, suggesting that the device-affordability and trust barriers documented here may reflect a broader regional pattern rather than a Magetan-specific anomaly. The finding also extends Lipsky's (1980) ^[19] street-level bureaucracy perspective: while frontline operators exercise considerable discretion and skill in service delivery, as this study's resources findings confirm, their effectiveness is bounded by structural conditions, device cost and public trust, that lie substantially outside their direct control.

4. Disposition and the Limits of Implementer Commitment

Consistent with Aprilia and Wahyudi's (2023) ^[3] finding that positive implementer attitude and commitment constitute an important success factor, this study's disposition findings show that Magetan's Disdukcapil leadership and staff have sustained strong commitment to the policy, including the expansion of service points to the district and village level. Implementers' own candid assessment that IKD utilization remains suboptimal due to insufficient regulatory support and limited application features, however, indicates that positive disposition alone cannot compensate for gaps in the policy's substantive design, a finding consistent with Zuhra's (2024) ^[38] observation, using the Edward III framework in Lhokseumawe, that communication and structural obstacles can persist even where implementer commitment is strong.

5. Comparison with Prior Studies

These findings both corroborate and extend the prior literature summarized in Table 2. Consistent with Aprilia and Wahyudi (2023) ^[3], strong supporting infrastructure is

confirmed here as a facilitator of smooth activation processing. Consistent with Alea (2024) and Rifqi (2025) ^[29], this study confirms that activation rates can remain comparatively low even where administrative efficiency improves and infrastructure proves adequate. The study extends this literature specifically by documenting, through multi-year activation data, a declining rather than merely stagnant uptake trend, and by tracing that decline to a specific budget-policy mechanism, national efficiency measures curtailing outreach funding, that has not been explicitly identified as a causal factor in the comparator studies reviewed, offering a more precise diagnostic than a general finding of low activation would provide.

Conclusion

1. Summary of Findings

This study examined the implementation of Digital Population Identity policy under Minister of Home Affairs Regulation No. 72 of 2022 at the Disdukcapil of Magetan Regency, using Van Meter and Van Horn's six-variable implementation model. The findings show that implementation has generally proceeded well across policy standards, human and infrastructural resources, organizational characteristics, and inter-institutional communication, yet has not achieved its intended outcome in terms of public activation, which declined sharply from 79,870 in 2022-2023 to 21,537 in 2024 and 5,276 in 2025, yielding a cumulative rate of 19.22 percent against a 30 percent national target. Principal obstacles include the absence of a stronger regulatory framework governing IKD utilization, budget constraints imposed by national efficiency policy that curtailed outreach activation and socialization, limited ownership of specification-compatible smartphones, public concern regarding data security and impersonation fraud, and persistent public preference for physical over digital documentation.

2. Theoretical Implications

This study reinforces Van Meter and Van Horn's (1975) ^[37] proposition that implementation success depends on the joint, rather than independent, operation of policy standards, resources, organizational characteristics, communication, disposition, and environmental conditions, while extending the model by demonstrating that resource adequacy must be assessed by function, internal service capacity versus outward-facing outreach capacity, rather than in aggregate, and that economic, social, and political conditions can function as the binding constraint on implementation even where all other variables are favorable. The study further illustrates the diagnostic value of multi-year outcome data in policy-implementation research, revealing a declining uptake trajectory that a single cross-sectional assessment would not have captured.

3. Practical Implications

For the Directorate General of Population and Civil Registration and the Government of Magetan Regency jointly, the findings support strengthening the regulatory framework governing IKD utilization to more fully realize the application's potential, improving inter-agency coordination, and reinforcing data-security infrastructure to prevent data breach or misuse, alongside expanded public education and socialization programming to reduce the inhibiting factors identified in this study. For the Disdukcapil of Magetan Regency specifically, the findings support intensifying socialization through social media, restored and expanded jemput bola outreach service, and

strengthened cooperation with district and village government, together with continued service innovation to ease public access and improve community understanding of Digital Population Identity.

4. Limitations of the Study

This study is subject to several limitations. First, it is confined to a single regency, meaning its findings cannot be generalized to other regions' IKD implementation without further comparative research. Second, the qualitative descriptive design, involving 13 informants, privileges contextual depth over statistical generalization, meaning the patterns identified should be read as context-grounded findings specific to Magetan's institutional and socioeconomic conditions. Third, the study centers on the perspective of implementers and a limited community sample; it does not systematically survey the broader non-activated population to establish the relative weight of each inhibiting factor identified.

5. Recommendations for Future Research

Future research could extend this study through comparative analysis across multiple regencies experiencing similar activation-decline patterns, to determine whether the budget-efficiency mechanism identified here reflects a broader national pattern in IKD implementation. Future studies might also employ quantitative survey methods to more precisely weight the relative contribution of device cost, trust deficit, and regulatory gaps to the low activation rates documented across the literature, and could usefully track activation trends longitudinally as outreach funding is potentially restored, to test directly whether the causal mechanism proposed in this study holds over time.

Taken as a whole, the Magetan case suggests that strong institutional readiness in human resources, infrastructure, and inter-agency coordination is a necessary but insufficient condition for digital-service policy success, and that sustained public uptake depends critically on protecting the specific budget lines, outreach and socialization, that connect institutional capacity to the citizens the policy is ultimately designed to serve.

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