

Original Research Article

Implementing Digital Population Identity in Local Government: Challenges and Lessons from East Tanjung Jabung, Indonesia

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Abstract: The digital transformation of population administration through Digital Population Identity (IKD) offers more efficient public services, but its implementation at the local level still faces a gap between institutional readiness and the community's digital environment. This study aims to analyze the implementation of IKD and identify its supporting and hindering factors in East Tanjung Jabung Regency. The study employed a descriptive qualitative approach with six informants representing government and community stakeholders. Data were collected through in-depth interviews, observations, and documentation, then analyzed using an interactive model involving data collection, data condensation, data presentation, and drawing conclusions. The results indicate that IKD implementation is underway but has not yet reached its full potential. The competence and commitment of government officials, division of tasks, coordination, service procedures, and integration with the SIAK system are the main supporting factors. Conversely, limited budgets and facilities, uneven internet coverage, low digital literacy and community readiness, limited devices, and suboptimal integration with external services continue to hinder implementation. Key findings identify a gap between institutional readiness and digital environment readiness, indicating that government organizations' readiness is insufficient without the support of infrastructure and public readiness. This study underscores the importance of aligning institutional capacity, digital infrastructure, public literacy, and service integration to achieve more inclusive and accessible digital identity services.

Keywords: Digital Identity, Policy Implementation, Digital Transformation, Public Services, Digital Readiness.

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1. INTRODUCTION

Digital transformation has become a crucial component of public administration reform as it changes how governments manage their organizations and deliver services to the public. The digitization of the public sector involves not only the transition from manual procedures to electronic systems but also encompasses changes in organizational processes, patterns of interaction between government and the public, and the creation of public value. Scupola and Mergel (2022) demonstrate that the digital transformation of public administration can drive the creation of public value through the engagement of both government and the public in service development. In line with this, Haug *et al.*, (2024) explain that changes driven by digital technology in the public sector are influenced by organizational, institutional, technological, and environmental factors. However, this transformation also presents new challenges, as the success of digital

services depends on public organizations' ability to manage change and respond to user needs (Figueredo & Silva, 2026). Thus, the success of digital transformation in the public sector is determined not only by the availability of technology but also by the government's capacity to effectively implement digital policies.

In the Indonesian context, one form of digital transformation in public services is the implementation of the Digital Population Identity (IKD) as part of the digitization of population administration. This policy was formally established through Regulation of the Minister of Home Affairs of the Republic of Indonesia No. 72 of 2022, which governs the implementation of the Digital Population Identity (Ministry of Home Affairs of the Republic of Indonesia, 2022). The IKD is intended to support the digital transformation of population administration and expand the use of digital identity in public services (Zainudin, 2025). However, the provision

of a digital system does not in itself guarantee the success of its implementation or its adoption by the public. Studies on the acceptance of e-government services in Indonesia indicate that the utilization of digital services is influenced by various factors related to the system, services, trust, risk, and user characteristics (Maktub *et al.*, 2025). This suggests that the implementation of the Digital Population Identity (IKD) must be understood not merely as the application of technology, but as a public policy process involving both the readiness of government organizations and the conditions of the public as service users.

A number of studies have examined the implementation of IKD in various local government contexts across Indonesia. Aprilia and Wahyudi (2023) examined the implementation of the IKD program at the urban village level in Surabaya, while Tukan and Rahmadanita (2023) analyzed its implementation in Lembata Regency. Subsequent studies were conducted in Bogor Regency (Purnamasari & Ramdani, 2024), Bumi Waras Subdistrict in Bandar Lampung (Djano *et al.*, 2024), Jambi City (Komariah & Rahmadanita, 2025), and West Bandung Regency (Madaul *et al.*, 2025). Other studies have expanded their focus to include the effectiveness of IKD implementation in civil registration services (Fitriani *et al.*, 2025), the quality of IKD services (Farhan, Aviery, *et al.*, 2024), the application of e-government in IKD services (Krishna *et al.*, 2025), and the contribution of IKD to improving public services (Sucahyo *et al.*, 2025). Recent studies also position IKD as an innovation in population administration services (Retu *et al.*, 2026) and as part of public service transformation (Hidayati *et al.*, 2026). This literature demonstrates that the implementation of IKD has become a key issue on the agenda for the digitization of public services across various regions in Indonesia.

Nevertheless, the literature used in this study indicates that previous research has focused primarily on the implementation, effectiveness, service quality, or utilization of IKD within the context of specific regions. Meanwhile, the implementation of digital services at the local level occurs under varying conditions regarding organizational capacity, technological infrastructure, and community readiness. Studies on e-government adoption indicate that the success of digital services is influenced not only by technological characteristics but also by user factors and the implementation environment (Saleh *et al.*, 2024; Maktub *et al.*, 2025). In the context of IKD, these conditions highlight the need for a more contextual understanding of how the internal capacity of local governments interacts with external community conditions in shaping both the success and obstacles of policy implementation. This perspective is crucial because digital policies designed through a approach at the national level are ultimately implemented in local environments with varying levels of infrastructure readiness, resources, and community characteristics.

Tanjung Jabung Timur Regency provides a relevant empirical context for explaining these issues. The implementation of the IKD in this region takes place amid challenges such as the uneven distribution of internet network infrastructure, limited supporting devices, disparities in the community's ability to use digital technology, and varying levels of public understanding of the IKD. At the same time, local governments are required to implement national policies using the available civil service capacity, service facilities, coordination mechanisms, and institutional structures. Therefore, this study does not merely assess whether the Digital Identity Program has been implemented, but analyzes how the implementation process unfolds and how internal organizational conditions and the external environment shape the factors that support and hinder its implementation. This perspective distinguishes this study from approaches that focus solely on program effectiveness or service quality, by framing the implementation of digital identity as the result of an interaction between local government capacity and the conditions of the digital service environment.

To analyze this process, this study employs Edwards III's (1980) policy implementation framework, which identifies communication, resources, dispositions, and bureaucratic structure as the four primary dimensions of policy implementation. This framework is used to analyze the dissemination and clarity of policy information, the readiness of human resources and facilities, the attitudes and commitment of implementers, and the support provided by the bureaucratic structure for the implementation of the Digital Identity System. This study aims to analyze the implementation of the Digital Identity System in East Tanjung Jabung Regency and to identify the internal and external factors that support and hinder its implementation. The contribution of this research lies in developing a contextual understanding of digital identity policy implementation at the local government level by linking internal organizational capacity with external conditions in the service environment. The research findings are expected to provide lessons for local governments in strengthening public communication, resource capacity, institutional support, digital infrastructure, and community readiness to support the implementation of digital-based civil registration services.

2. LITERATURE REVIEW

2.1 Digital Transformation and Digital Population Identity

Digital transformation in the public sector is not only about using technology to replace conventional administrative procedures but also encompasses changes in organizational processes, service delivery models, government-citizen interactions, and the creation of public value. Scupola and Mergel (2022) demonstrate that digital transformation in public administration can drive the creation of public value through the

engagement of both government and citizens in service development. Haug *et al.*, (2024) also emphasize that digital change in the public sector is influenced by the interaction of technological, organizational, institutional, and environmental factors. Therefore, the success of digital transformation is determined not only by the availability of technology but also by the ability of public organizations to effectively integrate technology into service delivery processes.

In Indonesia's civil registration system, this transformation is realized through the implementation of the Digital Identity System (IKD), the operation of which is regulated by Regulation of the Minister of Home Affairs of the Republic of Indonesia No. 72 of 2022 (Ministry of Home Affairs of the Republic of Indonesia, 2022). The IKD is part of the digital transformation of population administration and supports the integration of public services based on digital identity (Zainudin, 2025). However, the implementation of digital services does not automatically guarantee their optimal utilization. Its success also depends on institutional readiness, service quality, user characteristics, and the public's ability to access and use digital services (Saleh *et al.*, 2024; Maktub *et al.*, 2025).

Various studies indicate that the implementation of the Digital Identity System (IKD) in Indonesia faces varying conditions across regions. Studies in Surabaya, Lembata, Bogor, Bandar Lampung, Jambi, and West Bandung indicate that the implementation of digital services is related to public awareness campaigns, resources, infrastructure, civil servant capabilities, and community readiness (Aprilia & Wahyudi, 2023; Djano *et al.*, 2024; Madaul *et al.*, 2025). Other studies examine the IKD from the perspectives of service effectiveness (Fitriani *et al.*, 2025), e-government (Krishna *et al.*, 2025), improvements in public services (Suchaio *et al.*, 2025), and innovations in civil registration services (Retu *et al.*, 2026). This literature indicates that the implementation of the IKD is a multidimensional process involving policy, organizational capacity, technology, and community readiness.

2.2 Policy Implementation Perspective

This study employs Edwards' (1980) policy implementation model, which explains that implementation is influenced by four main dimensions: communication, resources, disposition, and bureaucratic structure. These four dimensions are used to understand how a policy is translated from its formal design into operational actions. This framework is relevant to the implementation of the IKD because the delivery of digital services requires effective policy communication, the availability of resources, the commitment of public officials, and institutional support.

Communication relates to the transmission, clarity, and consistency of policy information (Edwards

III, 1980). In the implementation of digital services, communication encompasses how the objectives, benefits, activation procedures, and use of these services are conveyed to public officials and the public. Outreach and guidance are crucial because the public's ability to understand digital services varies (Aprilia & Wahyudi, 2023; Komariah & Rahmadanita, 2025). Resources encompass the capacity required to implement policies, such as human resources, information, authority, and facilities (Edwards III, 1980). In digital services, resources also include civil servants' competencies, technological devices, service facilities, and internet connectivity. The availability of these resources determines the local government's ability to translate digital policies into services that are accessible to the public (Haug *et al.*, 2024).

"Disposition" refers to the attitudes, acceptance, commitment, and willingness of implementers in carrying out policies (Edwards III, 1980). In the implementation of the Digital Government Policy (IKD), disposition is reflected in the willingness of civil servants to adapt to digital services, assist the public, and respond to emerging challenges. Thus, digital transformation requires not only technology but also the support and adaptability of implementing civil servants. Bureaucratic structure relates to the division of responsibilities, work procedures, coordination, and institutional mechanisms in policy implementation (Edwards III, 1980). In the context of the IKD, this dimension encompasses the existence of standard operating procedures (SOPs), the division of tasks, coordination among units, and the integration of local service delivery with the national population administration system. A clear bureaucratic structure is necessary to ensure that national policies can be consistently implemented at the local government level.

2.3 Analytical Framework

Edwards III's framework provides a basis for analyzing policy implementation capacity from the perspective of government organizations. However, the implementation of digital services also takes place within an external environment that can either support or hinder its execution. The e-government literature indicates that the use of digital services is influenced by technological factors, service quality, trust, user characteristics, and the conditions of the implementation environment (Saleh *et al.*, 2024; Maktub *et al.*, 2025). Challenges in digital service delivery may also arise from the gap between technological advancements, organizational capacity, and the public's ability to access services (Figueredo & Silva, 2026).

Based on this framework, this study uses communication, resources, disposition, and bureaucratic structure as the main dimensions for analyzing the implementation of IKD. The subsequent analysis identifies supporting and inhibiting factors originating from both internal and external environments. Internal

factors include civil service capacity, technological infrastructure, institutional support, and coordination, while external factors include internet access, device availability, digital literacy, and community readiness.

Thus, the implementation of IKD is understood as a digital policy process that unfolds through the interplay between the capacity of local government organizations and the conditions of the digital service environment.

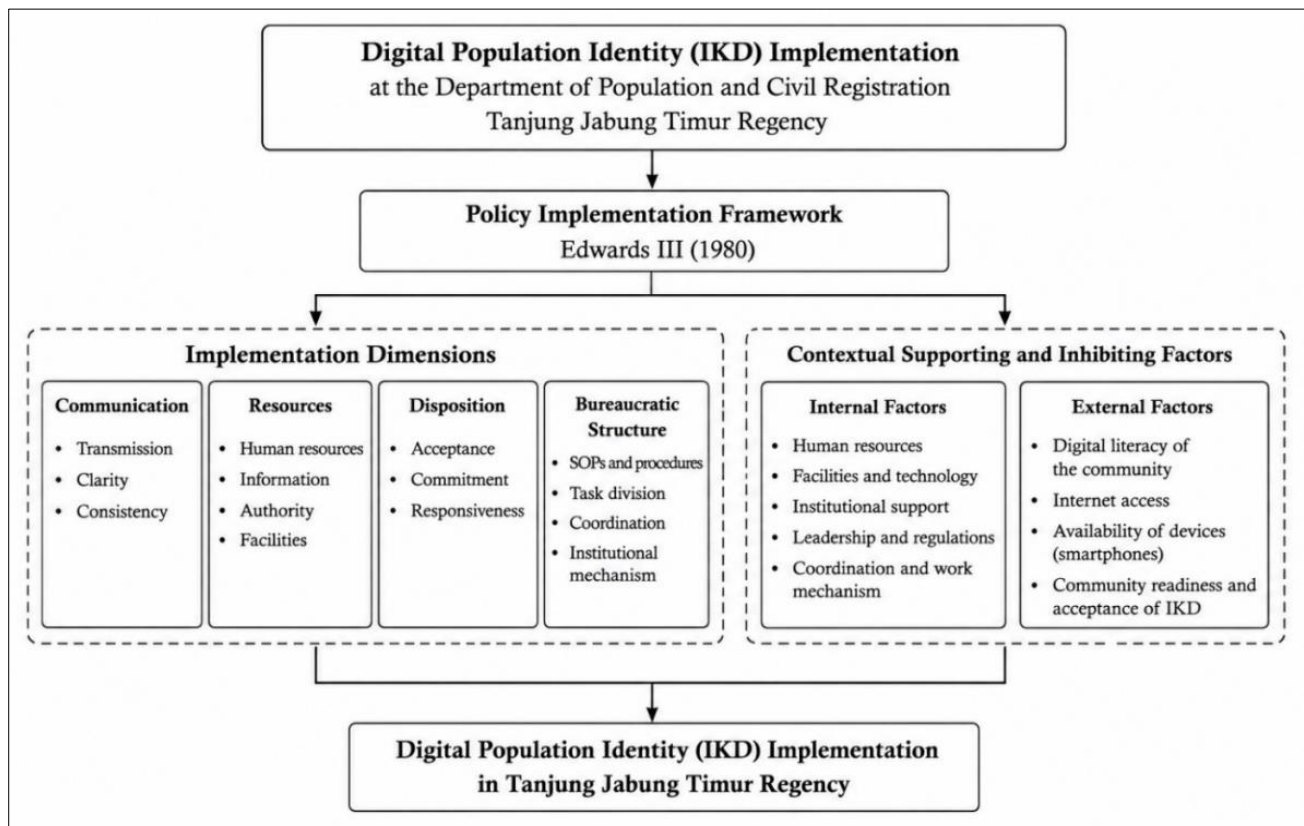


Figure 1: Analytical Framework for the Implementation of Digital Population Identity

Source: Authors' elaboration based on Edwards III (1980).

3. RESEARCH METHODOLOGY

3.1 Research Design

This study employs a descriptive qualitative approach to analyze the implementation of the Digital Population Identity (IKD) at the Population and Civil Registration Office of East Tanjung Jabung Regency, Jambi Province. The analysis focuses on the four dimensions of policy implementation identified by Edwards III (1980)—namely, communication, resources, disposition, and bureaucratic structure—as

well as internal and external factors that support or hinder the implementation of the DPI.

3.2 Informants and Data Collection

The study involved six informants selected based on their involvement and knowledge regarding the implementation of the IKD. The informants consisted of the Head of the Population and Civil Registration Office, the Head of the PIAK Division, two staff members, one member of the public who uses the IKD, and one member of the public who has not yet used the IKD.

Table 1: Research Informants

No.	Informant	Number	Code
1	Head of the Population and Civil Registration Office	1	I1
2	Head of the PIAK Division	1	I2
3	Disdukcapil Staff	2	I3, I4
4	IKD users	1	I5
5	People who have not yet used IKD	1	I6
Total		6	

Source: Research data, 2026.

Primary data was collected through in-depth interviews and direct observation, while secondary data was obtained from policy documents, archives, official

reports, IKD technical guidelines, and other relevant documentation. The use of these various data sources

also supports triangulation between informant information, field conditions, and documents.

3.3 Data Analysis

The data were analyzed using the Miles, Huberman, and Saldaña interactive model, which encompasses data collection, data condensation, data display, and conclusion drawing. Data from interviews, observations, and documentation were condensed and grouped based on Edwards III's four dimensions as well as enabling and hindering factors, and then presented systematically to identify patterns and draw conclusions.

3.4 Data Validity

Data validity was ensured through credibility, transferability, dependability, and confirmability. Credibility was strengthened through triangulation of sources and techniques by comparing the results of interviews, observations, and documentation. Transferability was supported through a description of the research context; dependability, through documentation of the research process as an audit trail; and confirmability, by ensuring that interpretations and conclusions were based on empirical evidence.

4. RESULTS

4.1 Implementation of the Digital Population Identity

The research results indicate that the implementation of the Digital Population Identity (IKD) in East Tanjung Jabung Regency is underway but has not yet been fully optimized. Implementation is supported by the competence and commitment of government officials, division of tasks, coordination, and system integration. However, limitations remain in the scope of communication with the public, facilities and infrastructure, system and network stability, and the public's readiness to use digital services.

4.1.1 Communication

Communication regarding the DPI has been conducted through various channels. Internally, information is conveyed through leadership directives, work instructions, circulars, and coordination among staff members. To the public, information is conveyed through outreach sessions in villages and sub-districts, in-person services at offices, WhatsApp, and social media. Nevertheless, the dissemination of information has not yet reached the public evenly. Some members of the public are aware of the existence of the IKD but do not yet fully understand its benefits or the procedures for using it.

This situation is evident from the statement made by I6:

"...I once saw an outreach event in the village, though only briefly as I was passing by." (I6, Interview, June 8, 2026)

This finding indicates that communication channels are available, but the reach and understanding

of the information remain uneven, particularly among people with limited digital literacy.

4.1.2 Resources

In terms of resources, Disdukcapil staff have been assigned according to their duties and functions and possess an understanding of the IKD activation mechanism. This supports the officers' ability to provide services and assistance to the public. However, facilities and infrastructure still face several limitations. Challenges include supporting devices, internet network stability, system disruptions, and the limited availability of community devices compatible with the IKD application.

Thus, human resources have relatively supported the implementation of the IKD, while technological and facility aspects remain obstacles. These conditions have prevented the IKD activation and usage process from proceeding optimally across all segments of the public.

4.1.3 Disposition

Government officials have demonstrated positive acceptance and commitment to the implementation of the IKD. Staff not only carry out the activation process but also provide assistance to community members experiencing difficulties. Employees are even encouraged to obtain and use the IKD themselves first so they can explain its use to the public based on their firsthand experience.

Informant I3 explained:

"...everyone supports this IKD policy... We are also required by our superiors to have an IKD ourselves before going out into the community, so that we can explain it directly to them." (I3, Interview, May 21, 2026)

Although the civil servants' commitment to service has been evident, the research findings indicate that initiatives, service innovations, and community outreach strategies still need to be improved, particularly to expand outreach and increase community participation in IKD activation.

4.1.4 Bureaucratic Structure

The structure for implementing the IKD is supported by a relatively clear division of tasks. The PIAK division handles the technical aspects of IKD services, while other divisions support service delivery. Internal coordination is carried out through leadership directives and inter-division communication. The service has also been integrated with the national SIAK system and is equipped with a mechanism for monitoring activation progress.

Informant I1 explained:

"...we have already assigned the tasks to the PIAK division, which specifically handles the

technical aspects of IKD services..." (I1, Interview, May 25, 2026)

This was corroborated by I2:

"...we already have a clear division of tasks, and all divisions are involved in the implementation of the IKD; this IKD has also been integrated with the SIAK system..." (I2, Interview, May 25, 2026)

Overall, the bureaucratic structure has supported the implementation of IKD through a clear division of tasks, service procedures, internal coordination, integration with SIAK, and monitoring mechanisms from the central government. Nevertheless, its implementation still faces limitations in supporting facilities that affect the optimization of services. When viewed as a whole, the four dimensions of IKD implementation reveal varying levels of support and challenges. A summary of the findings for each of these dimensions is presented in Table 2.

Table 2: Summary of Digital Population Identity (IKD) Implementation Results

Dimension	Key Findings	Assessment
Communication	IKD information is disseminated through in-person services, outreach activities, WhatsApp, and social media, but the reach of the information and public understanding are not yet uniform.	Not yet optimal
Resources	Officials are relatively competent and responsive in providing services and assistance, but there are still limitations in terms of facilities, technology systems, networks, and supporting infrastructure.	Fairly supportive
Attitude	Staff demonstrate acceptance, commitment, and a positive service orientation toward IKD, but initiative and innovation in reaching out to the community still need to be improved.	Supportive
Bureaucratic Structure	The division of responsibilities and service procedures are in place, internal coordination is functioning, and IKD services have been integrated with SIAK and are supported by monitoring mechanisms.	Support

Source: Processed research data, 2026.

4.2 Supporting and Inhibiting Factors

The research findings identified a number of internal and external factors that support or hinder the implementation of IKD. Internal supporting factors primarily include staff competence, staff responsiveness, commitment to service, division of tasks, and the ability to provide guidance to the public. Meanwhile, external supporting factors include national policy support, the integration of IKD with SIAK, network infrastructure support, the transformation of services toward a digital system, and positive feedback from the public who have used IKD.

Conversely, internal barriers primarily include budget constraints, limited facilities and infrastructure, and technical system issues. Budget constraints also limit the agency's ability to expand outreach and provide direct services to villages. Informant I1 stated:

"As for the obstacles, they're more on the budget side, as well as the facilities and infrastructure needed to support the activities of the Population and Civil Registration Office (Disdukcapil) and the IKD. Right now, the budget is the main obstacle due to a budget deficit." (I1, Interview, May 25, 2026)

Meanwhile, external barriers include uneven internet coverage, low digital literacy, limited access to devices compatible with the applications (), and the suboptimal integration of the IKD with services from other agencies. These barriers are primarily felt by community groups with limited digital capabilities.

Informant I5 explained:

"...I'm getting a bit older, so I still need guidance from the staff. But once the activation was complete, I found it easier... to access my ID card and other civil registration documents, such as my family's household registration certificate." (I5, Interview, May 31, 2026)

Meanwhile, Informant I6 stated:

"...I'm still more comfortable using the physical ID card... sometimes the IKD can't be opened, or I forget the PIN so I can't access it anymore... I'd rather wait until next time to complete the activation." (I6, Interview, June 8, 2026)

Overall, the research findings indicate that civil service capacity, commitment to service, organizational structure, and system integration have supported the implementation of the Digital ID (IKD). However, its implementation remains constrained by budget and facility limitations, system disruptions, uneven internet coverage, low digital literacy, limited public access to devices, and user readiness. These conditions reveal a gap between the readiness of the implementing organizations and the readiness of the community's digital environment. Thus, the success of IKD implementation is determined not only by the government's internal capacity but also by external conditions that support the use of digital services. A summary of the internal and external factors that act as

enablers or barriers to IKD implementation is presented in Table 3.

Table 3: Factors Supporting and Hindering the Implementation of Digital Population Identity (IKD)

Category	Factor	Key Findings
Internal Enablers	Civil servant competence	Civil servants possess adequate skills and understanding to carry out IKD activation and services.
	Commitment and responsiveness of government officials	Government officials demonstrate a commitment to service and provide assistance to members of the public facing difficulties.
	Division of duties and coordination	The division of tasks is relatively clear, and internal coordination supports the implementation of IKD services.
External Support	Regulatory Support	National policies provide the foundation for the implementation of IKD at the local level.
	Integration with SIAK	Integration with the national system supports the implementation and monitoring of IKD activation.
	User Feedback	Citizens who have used the IKD system report that it is easy to access civil registration documents.
Internal Constraints	Budget constraints	Budget constraints limit outreach efforts and the expansion of services to the public.
	Facilities and Infrastructure	Facilities and equipment supporting service delivery are still not fully adequate.
	Technical system issues	Application and system disruptions can hinder the IKD activation and service processes.
External Obstacles	Internet network	Uneven network quality and coverage hinder access to and activation of IKD.
	Digital literacy	Some members of the public still have difficulty understanding and using IKD services.
	Device Ownership	Not everyone owns a <i>smartphone</i> that supports the use of digital ID apps.
	Integration of external services	The use of IKD in services outside the civil registration system has not yet been fully integrated.

Source: Processed research data, 2026.

5. DISCUSSION

5.1 Communication and the Uneven Reach of Digital Policy

Research findings indicate that communication regarding the implementation of the IKD has taken place through various channels, including internal directives, direct outreach, WhatsApp, and social media. However, the existence of these various channels has not yet fully resulted in a uniform understanding among the public. This situation indicates that communication challenges in the implementation of the IKD no longer lie solely in the transmission of information, but also in the clarity and comprehensibility of the information for the target groups. From the perspective of Edwards III (1980), effective communication requires transmission, clarity, and consistency so that policies can be accurately interpreted by both implementers and target groups. These findings align with those of Aprilia and Wahyudi (2023), Tukan and Rahmadanita (2023), and Komariah and Rahmadanita (2025), which highlight the importance of outreach and communication in the implementation of the IKD. Thus, the digitization of services does not diminish the importance of public communication; on the contrary, the more diverse the public's digital capabilities become, the more necessary it is to adopt

adaptive and easily understandable communication strategies.

5.2 Resources and the Digital Capacity Gap

From a resource perspective, the study found relatively contrasting conditions between the readiness of government officials and the readiness of the technological environment and users. Disdukcapil officials are relatively competent and responsive in carrying out activations and providing assistance, but implementation is still limited by facilities, network stability, system disruptions, community devices, and user capabilities. Within the framework of Edwards III (1980), resources are an important prerequisite because policies are difficult to implement effectively if implementers lack adequate capacity and facilities. This finding expands our understanding of resources in digital services: adequate internal government capacity is insufficient if it is not accompanied by infrastructure and user readiness. This aligns with Haug *et al.*, (2024), who frame public sector digital transformation as a change influenced by the interaction of organizational, technological, institutional, and environmental factors. The research findings regarding device limitations and public readiness are also consistent with various studies on the implementation of the Integrated Population

Database (IKD), which indicate that infrastructure and user capabilities remain challenges in the digitization of civil registration (Djano *et al.*, 2024; Fitriani *et al.*, 2025; Sucahyo *et al.*, 2025).

5.3 Disposition and the Need for Proactive Implementation

Findings in the disposition dimension indicate that civil servants exhibit positive acceptance, commitment, and a service-oriented mindset toward the IKD. The willingness of officials to assist the public including providing guidance during activation suggests that resistance from civil servants is not a major barrier to implementation. From the perspective of Edwards III (1980), this condition is a crucial asset because the attitudes and commitment of implementers influence how policies are translated into practice. However, the findings also indicate that administrative commitment has not yet fully translated into proactive and innovative implementation, particularly in expanding the reach of outreach efforts and encouraging members of the public who have not yet adopted the IKD. Thus, a positive disposition must evolve from mere willingness to carry out the policy toward the ability to create service approaches that are adaptive to community characteristics. This aligns with the findings of Krishna *et al.*, (2025) and Hidayati *et al.*, (2026), who position IKD implementation as part of a digital-based transformation of public services that requires active government involvement in promoting its utilization.

5.4 Bureaucratic Structure and Institutional Readiness

The bureaucratic structure is a relatively strong dimension in the implementation of IKD in East Tanjung Jabung Regency. Task allocation has been carried out; the PIAK Division holds technical responsibility; service procedures are in place; internal coordination is functioning; and services have been integrated with the national SIAK system. These findings indicate the presence of institutional readiness at the implementing organizational level. Within the framework of Edwards III (1980), a supportive bureaucratic structure can reduce fragmentation and clarify implementation responsibilities. Integration with the SIAK also demonstrates that the implementation of the Digital Identity System (IKD) at the local level is not isolated but rather part of the national population administration system. This is consistent with Zainudin (2025), who positions digital identity as part of Indonesia's digital transformation and public service integration. However, the established structure has not yet fully eliminated implementation barriers, as operational capacity remains constrained by limited budgets and facilities. Thus, structural readiness is not always synonymous with operational readiness.

5.5 Internal–External Interaction in Digital Identity Implementation

The most significant finding of this study is that the implementation of the IKD cannot be explained solely by the internal capacity of government organizations. Internally, civil servant competence, commitment to service, division of tasks, coordination, and system integration have provided a relatively strong foundation. However, implementation still faces external barriers in the form of uneven internet coverage, low digital literacy, limited public access to devices, and suboptimal integration with external services. These conditions reveal a gap between institutional readiness and the readiness of the digital service environment. This finding aligns with Saleh *et al.*, (2024) and Maktub *et al.*, (2025), who demonstrate that the use of e-government services depends not only on the government and technology but also on user characteristics, capabilities, perceptions, and readiness.

These findings provide a more contextual understanding of digital policy implementation at the local government level. In digital-based services such as the IKD, implementation takes place within an interdependent ecosystem involving the government, technology systems, infrastructure, and users. Although internal communication, civil service capacity, implementers' commitment, and bureaucratic structure are in place, the benefits of the policy remain difficult to realize equitably if the public lacks internet access, suitable devices, or adequate digital skills. This perspective aligns with Scupola and Mergel (2022), who emphasize the interconnection between the digital transformation of public administration and the creation of value for society.

The findings of this study indicate that the application of the Edwards III framework in the context of digital public services must be considered alongside the conditions of the external environment in which these services are delivered. Communication, resources, disposition, and bureaucratic structure continue to provide a relevant framework for understanding implementation capacity at the organizational level. However, findings regarding internet connectivity, digital literacy, device ownership, and service integration suggest that the implementation of digital public services is also influenced by the readiness of the digital service environment. Thus, this study identifies a gap between institutional readiness and digital environment readiness in the implementation of digital identity services at the local level. This gap indicates that the readiness of government organizations alone is insufficient to ensure the optimal implementation of digital identity services; alignment is required between institutional capacity, digital infrastructure, community capabilities, access to devices, and service integration.

6. CONCLUSION

This study shows that the implementation of the Digital Identity System (IKD) in East Tanjung Jabung Regency is underway but has not yet been fully optimized. Internally, implementation is supported by the competence and commitment of civil servants, clear division of tasks, coordination, service procedures, and integration with the SIAK system. However, communication with the public has not yet resulted in uniform understanding, while budget and facility constraints continue to affect service delivery. Externally, uneven internet coverage, limited devices, low digital literacy, community readiness, and suboptimal integration with external services are the main obstacles. Thus, the implementation of IKD reveals a gap between institutional readiness and digital environment readiness, where the readiness of government organizations has not been fully matched by environmental conditions that support the use of digital services.

These findings underscore that the successful implementation of digital identity at the local level requires more than just strengthening the government's internal capacity; it necessitates aligning institutional readiness with the digital environment readiness of the community. Local governments need to expand communication and support efforts to reach groups with low digital literacy, strengthen service infrastructure and facilities, and develop more adaptive service strategies for communities with limited access and devices. At the same time, the integration of the Digital Identity System (IKD) with other public “ ” services needs to be strengthened so that the benefits of digital identity become more tangible for the public. With this approach, the implementation of the IKD can evolve from mere administrative digitization into digital public services that are more inclusive, easily accessible, and oriented toward the needs of the community.

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