

Implementation Analysis of the Digital Population Identity Policy in Aceh Besar Regency in 2023

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Abstract

Contemporary e-government transformation requires integrated and responsive public services; however, policy implementation often encounters disparities between national targets and local capacities. This study examines the implementation of the Digital Population Identity (Identitas Kependudukan Digital—IKD) policy in Aceh Besar Regency, Indonesia, where the activation rate remained at only 4.79%, far below the national target of 25% established under Minister of Home Affairs Regulation No. 72 of 2022. The research aims to analyze the effectiveness and challenges of IKD implementation using Jeffrey Pressman and Aaron Wildavsky's Joint Action implementation theory. A qualitative descriptive approach was employed through in-depth interviews with 12 informants representing policy makers, implementers, and service users, supported by observations and document analysis. The findings reveal that implementation is constrained by weak inter-organizational coordination, insufficient fiscal and logistical resources, rigid bureaucratic procedures, and inadequate technological infrastructure. Horizontal non-compliance by external institutions, including regional banks and hospitals that continue requiring physical identity documents, has reduced the practical value of IKD and reinforced a persistent paper-based culture. Furthermore, limited digital literacy among rural communities, complex registration procedures, unreliable internet connectivity, and concerns regarding data security have weakened public acceptance of digital identity. The study concludes that successful digital transformation requires stronger cross-sectoral coordination, adequate operational resources, integrated service ecosystems, regulatory support, and sustained digital literacy initiatives to improve IKD adoption in rural and peripheral regions.

Keywords: Coping Mechanism, Digital Population Identity, Digital Transformation, Paper-Based Culture, Policy Implementation.

INTRODUCTION

Digital transformation has become the main pillar in the implementation effective , accountable , and service - oriented governance public . In Indonesia, the high ownership *Smartphones* and internet penetration are important capital to support digitalization service government , including through policy Identity Digital Population (IKD). This policy , stipulated in Minister of Home Affairs Regulation Number 72 of 2022, aims to realize identity population integrated digital based , improving efficiency service administration , reducing use document physical , as well as expand access public to service public with activation target by 25% of amount resident KTP is mandatory for every area . However , the implementation Still face various constraint so that achievements IKD activation at the level national and the region has not met the set targets , which shows Still existence problems in aspects readiness infrastructure , capacity implementer , and acceptance public to digital services .

The empirical paradox regarding the implementation of the national Digital Population Identity (IKD) target is clearly visible in Aceh Besar Regency, where the achievement of IKD activation is still very low, namely only 4.79% or 3,546 people out of a total of 74,094 residents who are required to have an ID card. This figure is still far from the national target of 25%, thus indicating a problem in the implementation of the policy by the Population and Civil Registration Office of Aceh Besar Regency as the policy implementer. Based on the results of research by Sari and Winarno (2020), Device penetration in rural areas is high, but intergenerational digital literacy is low due to limited telecommunications infrastructure. This

condition is ironic because Aceh Province is generally ranked 9th nationally in the digital literacy health index, but the achievement of IKD in Aceh Besar has not been able to break through the 5% mark, which indicates that implementation obstacles are more influenced by structural, geographical, and operational factors than low digital literacy in the community. This problem is further exacerbated by the limited acceptance of the IKD by various service user agencies, such as Bank Aceh and the Aceh Besar District Hospital, which still require physical resident documents, thus perpetuating the culture of photocopying documents. Consequently, the practical benefits of the IKD have not been optimally felt by participating communities, reflected in the low evaluation of the IKD application on digital platforms, with a rating of around 3.3 stars, a consequence of various complaints regarding the quality of the personal data system and security.

Characteristics demographics and conditions geographical Aceh Besar Regency becomes challenge main in implementation Identity Digital Population (IKD). Most of the population KTP is required to be in the group age productive end to the elderly who have relative digital literacy low , while the very large area of Aceh Besar Regency , covering 23 sub-districts and 604 villages , is still face limitations access internet network , especially in the area hinterland and islands like Subdistrict Lhoong and Pulo Aceh. Conditions the hamper the IKD activation process which depends on internet connection and verification biometrics . In addition, the limitations means supporters , such as only availability three *Mobile Enrollment Kit* units and one vehicle operational to serve throughout the region, causing services are not running optimally. Obstacles the reinforced by the low trust public to digital data security due to the rise issue data leaks , so that part public still prefer use document population in the form of physique compared to digital identity .

Based on various problem said , research about implementation Identity Digital Population (IKD) in Aceh Besar Regency has mark novelty Because most of the research Previous studies focused more on the implementation of IKD in urban areas supported by adequate digital infrastructure and internet access . Meanwhile , the study about implementation of IKD in rural areas with characteristics wide geographical area , limitations facilities and infrastructure , as well as low support inter-agency Still relatively limited . In addition, this study uses approach triangulation through three group informant , namely maker policy , implementer policies , and users service , so that expected capable give a more comprehensive picture about factors that influence implementation of IKD in Aceh Besar District .

This research is important done Because own benefit theoretical and practical in supporting development policy service public digital- based , particularly in the relevance of classic policy implementation theories such as the Jeffrey Pressman and Aaron Wildavsky (Complexity of Joint Action) model to the dynamics of the digital cyber era in areas with rural-traditional characteristics . Wahab (2021) said “ The success of implementation is determined by the sharpness of synchronization between the central top-down command model and”.theoretically , this research is expected to enrich study implementation policy public , in particular implementation theory implementation policy in context digitalization service administration population in rural areas . In general practical , results study expected become material input for Government Aceh Besar Regency , especially the Population and Civil Registration Service , in formulating strategies to improve achievements activation Identity Digital Population (IKD) and overcome various constraint implementation faced . Therefore , the evaluation to implementation of IKD in Aceh Besar Regency becomes important carried out to support improvement quality service administration population digital- based and achieving policy targets that have been set.

RESEARCH METHODS

Using a descriptive analytical qualitative design, this study operationalizes a single theoretical framework from Jeffrey Pressman and Aaron Wildavsky's top-down implementation model, which provides several important elements that can be used to assess the implementation process using a top-down approach, namely assessed by indicators of clarity of main objectives, resources, time measurability, and conflict and negotiation. Number of decision points, coordination between agencies, the need for regulations, Data were collected through interviews with predetermined informants (Elite, Main, and Supporting Clusters), field observations, and documentation studies. The data analysis technique adopted the Miles, Huberman, and Saldana (2014) framework, which consists of three simultaneous activity streams: Data Condensation, Data Presentation, and Conclusion Drawing and Verification.

RESULTS AND DISCUSSION

Result

Elite Informant Perspective Analysis

Based on results research , implementation policy Identity Digital Population (IKD) at the Population and Registration Service Civil Aceh Besar Regency is not yet running optimally because Still faced with various constraint structural , organizational , and bureaucratic . National target setting IKD activation of 25% has not been balanced with readiness source power and support budget at the level area , so that cause mismatch between demands policy with capacity implementer . Condition the cause achievements IKD activation still is at 4.79 % , which shows that implementation policy is not yet capable fulfil targets that have been determined . In addition, the limitations budget operational impact on the limited activity socialization , service pick up the ball, as well as range service to communities in the Aceh Besar Regency area .

research results also show that success implementation of IKD is not only determined by the internal capabilities of the Population and Civil Registration Service, but is greatly influenced by coordination and commitment inter-organizational . Weakness collaboration between Disdukcapil , government sub-districts and government village cause mobilization community in activities IKD activation has not yet started in a way effective . On the other hand , the structure bureaucracy that still long and stiff hinder flexibility team implementer in adjusting service with condition dynamic field , especially in areas that have challenge geographical and weather conditions . As a result , various activity service often experience delay or cannot be implemented in accordance plan so that impact on low achievements IKD activation .

To overcome various problem this study concludes that that required strengthening governance implementation policy through improvement support regulation , provision source adequate power , as well as strengthening coordination cross government sector Aceh Besar Regency needs set capable policies push involvement active government sub-districts and villages in achieving IKD targets, accompanied by with simplification procedure administration so that services become more flexible and responsive to condition field . In addition, equal distribution service to remote areas need become priority for digital transformation of administration population can be felt in a way fair by all society . With Thus , the implementation of IKD in Aceh Besar Regency is expected to not only capable increase achievements activation , but also supports realization service administration effective , inclusive and sustainable population .

Key Informant Perspective Analysis

Based on results research , implementation Identity Digital Population (IKD) at the level implementer at the Population and Registration Service Civil Aceh Besar Regency has not been running optimally because Still faced with various constraint technical and operational . Obstacles main originate from central server instability Directorate General Dukcapil which is often experience disturbance at the time service taking place , so that hinder the verification process biometrics and delivery OTP code . Conditions the impact on disruption field services , increasing time Wait society , as well as cause pressure psychological for officers facing each other direct with society , even though problem the be outside authority government area . In addition to the obstacles system center , limitations facilities and infrastructure participate influence effectiveness implementation policy . Amount device *Mobile Enrollment Kit* , internet modem, as well support network telecommunications are not yet comparable with the service area covers 23 sub-districts and 604 villages , especially in the area inland and still islands experience limitations internet access . Conditions the cause range service IKD activation cannot be done yet in a way evenly , so that more services focused on areas that have access better network . Limitations budget operations also hamper procurement equipment adequate support to support service digital- based .

In facing the various limitations said , the implementers in the field do various form discretion so that service still walking , like use personal internet quota to support the IKD activation process . Although step the show commitment and dedication apparatus in providing service to society , practice cannot be used as solution term long Because potential cause work fatigue and decreased motivation employees . Therefore , the increase quality implementation of IKD requires support government through provision infrastructure adequate technology , addition means operational , strengthening budget services , as well as policies that guarantee need operational officer field so that IKD implementation can take place in a way effective , sustainable , and reaching throughout the Aceh Besar Regency area .

Supporting Informant Perspective Analysis

Based on results research , implementation Identity Digital Population (IKD) in Aceh Besar Regency from perspective society and institutions users external is not running yet optimally because benefit the application has not been felt yet in a way real in service public . The low interoperability between IKD system with various agency users , such as banking and facilities health , causing public Still required using physical ID cards and documents photocopy in the administrative process . Condition the reduce trust public towards IKD because the innovations offered are not yet capable give convenience compared to system conventional . In addition, the registration process is relatively complicated , like email usage , OTP verification , and scanning biometrics , to be constraint alone , especially for elderly groups and communities that have limitations digital literacy .

study also shows that low level adoption of IKD is still influenced by strong culture use document physical (*paper-based culture*) and low trust public to digital services . Concerns to data security , risk disturbance internet network , and the fact that it has not been built ecosystem full service support the use of IKD makes public still rely on electronic ID cards in the form of physical . Therefore , success implementation of IKD is not only need improvement infrastructure technology , but also strengthening integration service inter-agency , simplification procedure activation , as well as improvement digital literacy and trust society so that IKD can be accepted as valid and used digital identity in a way wide in various service public .

Discussion**Structural Dynamics Analysis and Coordination Chain**

Implementation policy Identity Digital Population (IKD) in Aceh Besar Regency shows that national target setting 25 % has not been balanced with readiness capacity areas ,

especially from aspect budget , logistics , and coordination inter-institutional . Limitations allocation budget for socialization and services pick up the ball causes program implementation has not been able to reach all regions, especially area rural areas . On the other hand , coordination between Population and Civil Registration Office with government sub-districts and villages have not been running optimally because difference program priorities , so that mobilization community and implementation IKD services were not implemented in a way effective . Condition the result in achievements IKD activation still Far from the set target . Based on perspective theory *Complexity of Joint Action* Pressman and Wildavsky and the implementation model of Van Meter and Van Horn, the low achievements implementation influenced by complexity bureaucracy , weakness commitment between organizations , and not being ready yet ecosystem digital services . The number of procedure administration slow down program implementation , while low participation society and its lack of integration institution users service make the benefits of IKD cannot yet be felt optimally . As a result , Disdukcapil still have to run service in a way double , namely digital services and documents physical , so that digital transformation is not yet underway effective and achieved IKD activation in Aceh Besar Regency remains stagnated at 4.79 %.

Operational Capacity Analysis and Resource Support

Capacity operational activities of the Population and Registration Service Civil Aceh Besar Regency in implementing Identity Digital Population (IKD) has not been running optimally because Still faced with various constraint technical and limitations means support . Disruption to the central server Directorate General of Dukcapil, such as slowdown system failure verification biometrics , and delays delivery OTP code , often inhibit the activation process of IKD, while limitations internet network and devices connectivity in remote areas and archipelago the more slow down service pick up the ball. Condition the cause officer the field must use personal internet quota for service still walking , which shows that support logistics and budget operational is not adequate so that burden implementation policy part diverted to apparatus . As a result , the effectiveness The implementation of IKD in Aceh Besar Regency is still not optimal and requires strengthening infrastructure technology as well as support more adequate operations .

Table 1. Ratio Availability of Logistics for the Pick-Up Team vs. Geographical Burden Service Area

No	Technical Logistics Components	Amount Equipment Availability (Units)	Service Load (Village/ Sub-district)	Ratio Ideal Tool Coverage	Readiness Status Operational
1	Device Mobile Enrollment Kit (Recording & Activation Tool) Around)	3 Unit	604 Villages	1 Unit : 201 Villages	Very Limited (Causes queue length and schedule the circumference cannot be periodic).
2	Service Internet Modem Router Device	4 Unit	2,903 km ²	1 Unit : 5.7 Districts	Inadequate (Signal is unstable in rural areas , triggering action <i>tethering</i> independent).
3	Vehicle Operational	1 Unit	23 Districts	1 Unit : 23	Very Poor (Mobilization team technical stuck

	Service Around (Moko)		Distri cts	consequence fleet limitations).
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Source : Secondary Data Processed from Shopping Asset Report Operational Population and Civil Registration Office Aceh Besar Regency (2024).

Based on the table above, the imbalance between means operational and area size is one of the constraint main IKD implementation in Aceh Besar Regency . With an area of 2,903 km² covering 604 villages , the Population and Civil Registration Office (Disdukcapil) only own 3 units *Mobile Enrollment Kit* and 1 vehicle operational , so that One the device must serve around 201 villages . This limitation causes service outreach cannot be done yet optimally , especially in remote areas .

Limitations infrastructure be one of reason main low achievements IKD implementation in Aceh Besar Regency . Population and Civil Registration Office only supported by four internet modem units to serve 23 sub-districts , so that services in remote and island areas often constrained network . As a result , the verification process biometrics often experience disturbances and officers the field must use personal internet quota for service still walking . This condition indicates that stagnation IKD activation of 4.79% more was due to limitations support logistics and infrastructure than low performance apparatus . Findings research also shows that use source Power personal by officers is form discretion to address limitations means operational . However , the practice cannot be used as solution term long Because reflects the inadequacy of capacity organization in supporting implementation digital policy . With thus , the low IKD achievements are not only influenced by factors technical , but also by the fact that it is not yet optimal readiness infrastructure , support budget and system operational support implementation policies in the region .

Analysis of Local Adaptability and Sociological Response

Response public Aceh Besar Regency towards implementation Identity Digital Population (IKD) is still tend low Because the benefits have not been felt in a way real . Society remains requested using physical ID cards in various agencies , such as banking and hospitals , so that IKD is considered not to have provided ease of service . This condition gives rise to low trust public against IKD and inhibits improvement participation in activation digital identity .

Table 2 Matrix Identification Readiness Infrastructure IKD Readers at User Agencies in Aceh Besar District

No	Service Sector	User Agencies	Availability Device Scanner (Barcode/QR Scanner)	Policy Reception Document	Digital Ecosystem Integration Status
1	Banking	Bank Aceh Syariah	Not yet available	Photocopy of e-KTP is required	Not yet integrated (IKD application only) only for display, cannot be withdrawn the data).
		Bank Syariah Indonesia (BSI)	Not yet available	Photocopy of e-KTP is required	
2	Health	Aceh Besar District Hospital	Not yet available	Physical Card / Photocopy Required	Fragmented (System references Still depends on the

No	Service Sector	User Agencies	Availability Device Scanner (Barcode/QR Scanner)	Policy Reception Document	Digital Ecosystem Integration Status
		BPJS Health Main Branch	Partial (JKN Mobile Application)	Accept Digital Terms Strict	file physique photocopy).
3	Transp ortatio n & Law	Authority Sultan Iskandar Muda Airport	Available	Accept IKD barcode	Very Limited (Only valid at gates) airport entry check air).
		Aceh Besar Police Resort (Polres)	Not yet available	Physical Required (Suket/KTP)	

Source : Secondary Data Processed from Observation Results Field and Inventory Sectoral Population and Civil Registration Office Aceh Besar Regency (2024)

The table above explain Mapping institutional show that implementation of IKD in Aceh Besar Regency is still hampered by the lack of integration various agency service public with IKD system . Bank Aceh Syariah, BSI, and Aceh Besar Regional Hospital do not yet have facility support to verify IKD, so that public Still required using electronic ID card and photocopy documents in every service process . This condition causes the benefits of IKD have not been felt optimally and inhibit expansion its use in society .

The low adoption Identity Digital Population (IKD) in Aceh Besar Regency is influenced by the suboptimal ecosystem digital services . Various agency Users , such as Bank Aceh Syariah, BSI, and RSUD Aceh Besar, have not yet integrated the system with IKD so that public still required using physical ID cards and documents photocopy . This condition causes benefit Practically, IKD has not been felt by the community , so lower trust and interest in activating IKD. In perspective *Diffusion of Innovations* Rogers (2003), innovation has not shown *relative advantage* because I'm not yet able to give better convenience compared to system conventional . In addition, the low digital literacy and characteristics public rural areas participate hinder IKD implementation . The registration process requires an active email , OTP verification , and scanning . biometrics Still considered complicated , especially for elderly groups who have limitations ability use technology and adequate equipment . Conditions the reinforced by still strong culture use document physical (*paper-based culture*) and low trust public to digital data security , so that people prefer using an electronic ID card in the form of physique .

Based on Pressman and Wildavsky's theory , the low IKD implementation is also influenced by the weakness compliance and coordination inter-agency . Not ready yet institution users in adopting IKD as well as low trust public cause digital transformation is not yet underway effective . Therefore , the increase implementation of IKD is not only need strengthening infrastructure technology , but also integration service inter-agency , simplification of activation processes , improvement digital literacy , and strengthening trust community so that the IKD activation target can be achieved.

CONCLUSION

Based on results research , implementation policy Identity Digital Population (IKD) at the Population and Registration Service Civil Aceh Besar Regency has not been running optimally, as shown by the achievements activation of 4.79%, far below the national target of 25%. The low achievements the influenced by suboptimal coordination inter-agency , limitations support budget , as well as procedure bureaucracy that still rigid so that hinder implementation services in the field . In addition, the weakness collaboration with government sub-district , government villages and institutions users like banking and hospitals cause utilization of IKD has not been running in a way extensive . This finding shows that implementation policy is not yet capable build action effective joint *action* as proposed by Pressman and Wildavsky, so objective policy has not been achieved in a way optimal. In addition factor institutional , this study also found that IKD implementation is influenced by limitations source power , infrastructure technology , and low reception society . The lack of device operational , central server disruption , limitations internet network in remote areas , as well as use source Power personal by officers show that capacity the organization is not adequate in supporting implementation policy . On the other hand , the low digital literacy , not yet integrated IKD system with various agency users , still strong culture use document physical (*paper-based culture*), as well as concern public to data security causes IKD adoption is underway slow . Therefore , success implementation of IKD requires strengthening coordination cross sector , increase support source power and infrastructure , simplification procedure services , as well as improvement digital literacy and trust society for transformation service administration population digital- based can be implemented in a way effective and sustainable.

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