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From Policy to Practice: An Edward III Analysis of Local Government Information System Implementation in Magetan Regency, Indonesia

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Abstract

The Local Government Information System (SIPD), mandated by Regulation of the Minister of Home Affairs No. 70 of 2019, integrates regional development planning, budgeting, treasury, accounting, and financial reporting into one web-based platform. This study examines SIPD implementation at the Regional Financial and Revenue Management Agency (BPKPD) of Magetan Regency, identifying supporting and hindering factors. Using a qualitative descriptive approach grounded in Edward III's implementation model—communication, resources, disposition, and bureaucratic structure—data were gathered via interviews with eight informants (the BPKPD Head, three division heads, four operators), plus observation and documentation, analyzed via the Miles, Huberman, and Saldana model. Implementation proceeded reasonably well. Inter-regional and horizontal communication functioned effectively, while vertical communication with the Ministry was hampered by online (Zoom) socialization, slow helpdesk response, and abrupt updates lacking technical guidance. Staffing in Budgeting and Accounting remained critically limited, three personnel each, causing dual workloads during server disruptions requiring manual verification. Frontline resistance gave way to strong institutional commitment, reinforced by leadership support, competency development, and peer coordination nationally. Authority division was clearly enforced by the system, though a local SOP had not yet been formalized. The study concludes effective SIPD governance requires a formal SOP, expanded staffing, and resilient server infrastructure.

Keywords: policy implementation; local government information system; George C. Edward III; regional financial management; digital governance; Magetan Regency.

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1. Introduction

Article 391 of Law of the Republic of Indonesia No. 23 of 2014 explicitly obligates regional governments to make available Regional Government Information relating to regional development and regional finance, to be managed through a Local Government Information System. Building on this mandate, the Central Government, through the Ministry of Home Affairs, developed and continues to develop an information system connecting every regional agency to central government, formalized under Regulation of the Minister of Home Affairs (Permendagri) No. 70 of 2019, known as the Local Government Information System (Sistem Informasi Pemerintahan Daerah, SIPD). Article 4 of Permendagri No. 70 of 2019 obligates regional governments to provide regional development information and regional financial information managed within SIPD, a platform built to generate interconnected, integrated, electronic-based local government information services.

Regional Financial Information, under Article 17 of Permendagri No. 70 of 2019, encompasses budget planning, implementation and administration, accounting and reporting, and accountability for regional financial execution. SIPD's function for both central and regional government is expected to unify national reference data, ease external regional planning and financial processes, and support evaluation of financial planning, performance, and legal products through a single system, easing national development database management and regional data analysis (Jauhari, 2023). SIPD also functions as an integrated, real-time, online data network connecting central and regional government through information technology, supporting program and activity planning and appropriately targeted, effective, and efficient regional development evaluation, and facilitating integrated use of information on regional development progress (Dipua et al., 2020). SIPD policy implementation is further driven by increasingly active regional government administration, generating demand for an information system capable of supporting efficient, effective oversight and guidance of regional governance (Nirmala et al., 2023).

SIPD was launched in October 2019 as a concrete realization of Article 391 of Law No. 23 of 2014. Early implementation encountered several problems, including low apparatus understanding of SIPD operation; Ekaputra's (2021) analysis similarly finds that first-year SIPD implementation proved ineffective owing to user unfamiliarity with the application and substantial nomenclature changes in planning-document preparation. Other research identifies limited human-resource quantity as a further constraint (Sutisna et al., 2022), while Adisi and Sadad (2022) document persistent server-access difficulty and continuing need for development, particularly within the regional financial system module.

SIPD implementation under Permendagri No. 70 of 2019 constitutes a mandatory instrument for digitalizing regional government administration, emphasizing the importance of regional governments possessing transparent, accountable, efficient, fair, and answerable planning data and information related to regional financial management, with the objective of creating quality regional financial management spanning planning, budgeting, implementation, reporting, and accountability, ultimately generating an accountable financial cycle.

SIPD took effect in 2020 with planning and budgeting modules only; the planning module is operated by the regional planning agency (Bappedalitbang, now Bapperida) as the leading sector for the planning stage of APBD document preparation. A structural problem emerged at the outset: while regional financial management encompasses planning, budgeting, treasury administration, and reporting and accountability, only the planning and budgeting modules were initially available. Pending treasury-module access, regional governments continued relying on the legacy SIMDA application for fund-disbursement administration, even though Permendagri No. 70 of 2019 mandates that all regional financial information be managed within SIPD. The Treasury Administration Module and the Regional Financial Accounting and Reporting Module became accessible on SIPD-RI only in 2024, and network and data-migration constraints between the budgeting, treasury, and accounting-and-reporting modules persist.

Notwithstanding SIPD's evolution into SIPD-RI, field-level obstacles remain evident at Magetan Regency's BPKPD, this study's chosen research locus, including frequent application access difficulty caused by network problems, an insufficient number of SIPD operators, limited staff understanding of SIPD operation and regional financial management regulation, and slow Ministry of Home Affairs response to technical problems in the field. These problems substantially affect apparatus performance in executing the regional financial management cycle through SIPD, particularly toward fiscal year-end, when server error on both the Budgeting and Treasury Administration modules frequently disrupts budget absorption.

Such server error directly obstructs treasury-administration document preparation, including the Payment Request Letter (SPP), Payment Order Letter (SPM), and Fund Disbursement Order (SP2D), delaying regional expenditure absorption in ways that affect government performance. Server error is further compounded by unannounced system maintenance and feature updates lacking accompanying technical guidance, generating confusion among regional government users, an issue most acute during periods of concurrent, high-volume application use.

Field evidence documents this problem concretely. Table 1 summarizes the principal documents processed through SIPD across the planning, budgeting, and treasury-administration stages, illustrating the system's substantial operational scope.

Table 1. Selected Regional Financial Management Documents Processed through SIPD

Module / Stage	Document / Output	Function / Brief Description
Planning	RPJMD (Regional Medium-Term Development Plan)	Five-year strategic regional development plan
Planning	Renstra (Strategic Plan) of Regional Apparatus	Five-year tactical planning document for each regional apparatus organization

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Module / Stage	Document / Output	Function / Brief Description
Planning	RKPD (Regional Government Work Plan)	Annual regional planning document bridging medium-term planning to budgeting
Planning	Renja (Work Plan) of Regional Apparatus	Annual work plan of each work unit
Budgeting	KUA-PPAS (General Budget Policy and Provisional Budget Ceiling Priorities)	Agreement between regional government and DPRD on policy direction and provisional budget ceiling
Budgeting	RKA (Work Plan and Budget) of Regional Apparatus	Detailed expenditure, revenue, and financing proposal from each regional apparatus organization
Budgeting	APBD (Regional Revenue and Expenditure Budget)	The principal regional regulation on annual regional revenue and expenditure
Treasury Administration	DPA (Budget Implementation Document)	Official basis for regional apparatus to begin executing revenue and expenditure
Treasury Administration	SPD (Fund Provision Letter)	Periodic cash-provision document setting the maximum cash-withdrawal limit
Treasury Administration	SPP / SPM / SP2D	Sequential payment-request, payment-order, and fund-disbursement documents

Source: Compiled by the author from Permendagri No. 70 of 2019 and BPKPD Kabupaten Magetan documentation (2026).

Table 2 further illustrates the scale of SIPD's user base within Magetan Regency's government, summarizing the total number of regional apparatus organizations (OPD), the sub-activities they administer, and the operators supporting them.

Table 2. Summary of SIPD Usage across Magetan Regency's Regional Apparatus Organizations

Indicator	Total
Number of regional apparatus organizations (OPD) using SIPD	43
Total sub-activities administered across all OPD	2,383
Total SIPD operators across all OPD	722
Approximate sub-activities per operator	More than 3

Source: SIPD-RI (sipd-ri.kemendagri.go.id), processed by the author (2026).

All 43 regional apparatus organizations in Magetan Regency, including BPKPD itself, use SIPD to administer a combined 2,383 sub-activities, supported by only 722 operators regency-wide, meaning each operator manages the detailed budget-ceiling input for more than three sub-activities on average, a workload distribution generating substantial psychological burden given the volume of required input. A further recurring obstacle concerns limited staff understanding of correct input procedure and expenditure-account-code preparation, a problem compounded among older employees less familiar with information technology; errors of this kind risk generating audit findings from Indonesia's Supreme Audit Agency (BPK), affecting the quality of APBD accountability reporting.

This risk is not merely theoretical. Inspectorate review of Magetan Regency's draft Provisional Budget Ceiling Priorities (PPAS) document identified several discrepancies between planning and budgeting documents, including a program with a stated physical target but zero allocated budget, missing performance indicators and targets in planning documents, an unlisted program budget ceiling, and a discrepancy exceeding IDR 250 million between the budget ceiling recorded in the PPAS and that recorded in the RKPD. These findings indicate that SIPD-generated planning and budgeting documents are not always synchronized, and that ratifying a non-compliant KUA-PPAS draft into the APBD would expose the region to performance-accountability risk.

These field-level findings indicate that SIPD implementation continues to face substantive problems, while research specifically examining SIPD implementation in Magetan Regency remains limited. Achieving quality regional financial management requires an effective, well-targeted information system; this study is accordingly considered important for describing the extent to which SIPD has been implemented at the Regional Financial and Revenue Management Agency of Magetan Regency.

Based on this background, the study formulates two research problems: how has Permendagri No. 70 of 2019 on SIPD been implemented at Magetan's BPKPD, examined from the standpoint of communication, resources, disposition, and bureaucratic structure, and what factors support and hinder SIPD implementation at Magetan's BPKPD? Correspondingly, using George C. Edward III's implementation theory, this study aims to describe and analyze SIPD implementation at Magetan's BPKPD across the four Edward III variables, and to describe and analyze the supporting and inhibiting factors shaping that implementation.

2. Literature Review

2.1 Public Policy

Public policy constitutes the idea or concept underlying government's choice to act or not act in responding to social phenomena or public issues. Dye, as cited in Kencana (2007), defines public policy as whatever governments choose to do or not to do, holding that where government chooses to act, that action must have a purpose, and that public policy encompasses the whole of government action rather than a mere statement of governmental intent. Wilson, as cited in Wahab (2017), similarly frames public policy as the actions, objectives, and pronouncements of

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government on particular matters, the steps taken or not taken to implement them, and the explanation offered for what occurs or does not occur. Chandler and Plano, as cited in S. (2017), describe public policy as a sanctioned consequence directed toward a particular objective when addressed to a specific problem affecting a substantial portion of the environment, while Nasucha (2004) frames public policy as governmental authority in policymaking translated into legal instruments, intended to absorb social dynamics as a reference for policy formulation.

Synthesizing these perspectives, public policy can be understood as a series of choices, actions, and governmental authority formulated to respond to public problems and social dynamics, functioning as a strategic instrument for managing and resolving public issues through planned, purposeful, politically and legally valid decisions responsive to social change. Within this study's context, Permendagri No. 70 of 2019 on SIPD constitutes a concrete realization of this public-policy concept: the regulation embodies government's action and choice, in Dye's and Wilson's terms, to respond to the previously fragmented dynamics of regional governance, using binding legal authority, consistent with Chandler and Plano's and Nasucha's framing, to integrate regional planning, budgeting, treasury administration, and financial reporting into a single digital platform. SIPD implementation is accordingly not merely a technological innovation but a strategic public policy implemented to realize more integrated, transparent, and accountable regional governance.

2.2 Public Policy Implementation

Public policy implementation constitutes the sequence of execution stages through which a formulated policy decision is realized, generating tangible benefit for society; implementation forms the connective link between planning and outcome, since even the best-formulated policy produces no change or benefit absent effective implementation. Kridawati (2011) holds that policy implementation is a critical stage in the policy process, determining whether policy objectives and impact are ultimately achieved. Van Meter and Van Horn, as cited in Winarno (2007), describe policy implementation as action taken pursuant to a prior decision, encompassing efforts to translate that decision into operational activity over a given period, or efforts to sustain change, whether large or small, toward a decided objective; policy decisions established should be adhered to and implemented by public institutions so that established objectives can be achieved. Wibawa, as cited in Tahir (2014), similarly holds that the purpose of implementation is to set direction so that public-policy objectives can be realized as an outcome of government activity, with the full policy-establishment process beginning only once general objectives and targets have been detailed, programs designed, and funding allocated toward those objectives. Grindle, as cited in Waluyo (2007), adds that policy implementation is not merely a mechanism for translating political decisions into routine bureaucratic procedure, but concerns conflict and the question of who obtains what from a given policy.

Contemporary policy implementation extends beyond conventional program execution to encompass the digitalization of government administration. In this context, digital-system policy implementation is not a mechanical process of transferring manual procedure into computer software, but a complex bureaucratic transformation demanding technological infrastructure readiness, database integration, apparatus digital literacy, and adaptation to new working culture. Digital-system implementation success accordingly depends on the clarity of technical regulation, resource adequacy (IT facilities and human-resource competency), implementer attitude and commitment in managing technological resistance, smooth coordination across bureaucratic structure, and system reliability in supporting efficient, accountable governance.

2.3 The George C. Edward III Implementation Model

Edward III, as presented in Winarno (2007), holds that policy implementation is a critical stage of public administration and public policy, situated between policy formulation and the policy's consequences for the community it affects. A policy well implemented but inaccurate, and thus incapable of resolving its target problem, is regarded as having failed; equally, a well-designed policy will be judged a failure if poorly implemented. Edward III identifies four variables shaping implementation success: communication, resources, disposition, and bureaucratic structure.

Communication requires that those executing a decision know what they are to do; decisions, policies, and orders must reach the appropriate personnel accurately and be clearly understood by implementers. Edward III specifies three indicators for measuring communication success: transmission, the smoothness of communication delivery, avoiding misunderstanding, operationalized in this study through SIPD-socialization frequency and reach across regional apparatus organizations and the intensity of technical guidance (bimtek) provided to operators and financial-administration officials; clarity, ensuring transmitted communication is clearly received, operationalized through the availability of written guidance or video tutorials for SIPD-module operation and the responsiveness of the regional technical (helpdesk) team in addressing user difficulty; and consistency, ensuring that instructions remain consistent and clear rather than frequently changing in ways that generate field-level confusion, operationalized through the clarity and consistency of information accompanying feature updates, input-flow changes, or SIPD version migration issued from central government.

Resources concern the availability of what implementers require to execute a policy, since even clear, consistent communication proves ineffective absent adequate resource support. Edward III identifies four resource dimensions: staff, where sheer personnel quantity does not guarantee positive implementation effect absent matching competency, operationalized through the availability of competent SIPD administrators or operators in each OPD's planning-and-finance sub-division and operator understanding of current regional financial-administration regulation and basic IT capability; information, encompassing both information on how to execute a policy and information on personnel compliance with government regulation, operationalized through ease of access to Ministry of Home Affairs technical guidance and the availability of valid master data, such as account codes and price standards, for input; authority, which must be formal for orders to be executable, though formal authority alone does not guarantee effectiveness, operationalized through clarity in account-authority division, encompassing OPD-head accounts as budget users, verification-official accounts, activity-official accounts, and operator accounts, consistent with formal duty assignment; and facilities, since adequate staff, understanding, and authority remain insufficient absent supporting physical infrastructure, operationalized through internet stability at each work unit to minimize obstacles during mass data input, central and regional server capacity readiness

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during critical periods such as detailed APBD input, and the adequacy of operator computer equipment.

Disposition, or implementer attitude, concerns whether implementers who respond favorably to a policy and receive adequate support will execute it consistent with policymaker intent, and vice versa. Edward III highlights two relevant variables: bureaucratic appointment, since inappropriate personnel selection can generate substantial implementation obstacles, requiring careful selection of implementers capable of assuming responsibility for the established policy, operationalized through leadership and implementer commitment to comply with SIPD-related regulation, the degree of resistance among apparatus accustomed to manual systems or legacy local applications, and their adaptation to SIPD's stricter workflow; and incentive, since policymakers may manipulate incentive structures, such as additional compensation or particular benefits, to encourage implementers to execute orders well, operationalized through fair incentive policy, whether supplementary income, recognition, or overtime pay, for operators frequently required to work beyond regular hours to meet regional data-input deadlines.

Bureaucratic structure concerns the organizational arrangement through which policy is executed, since bureaucracy is often, in its entirety, the policy's implementing body; complex policy implementation demands sound cooperation among numerous parties. Operational indicators relevant to SIPD implementation include clear task division specifying who inputs data, who verifies at the divisional level, and who approves at the agency-head level; coordination in dividing subject-matter menus among the Regional Planning Agency (Bappeda, responsible for the RKPD/work plan), BPKAD (responsible for budgeting/APBD), and other relevant units; and the existence of standardized local procedures governing physical-document collection deadlines prior to system upload or input, to prevent input-queue congestion near scheduling deadlines.

2.4 The Ripley and Franklin Implementation Model

Ripley and Franklin, as cited in Tahir (2014), hold that implementation-success criteria rest on three perspectives: the perspective of lower-bureaucracy compliance with higher bureaucracy; the perspective of smooth routine and the absence of problems; and the perspective of execution generating satisfactory performance for all parties, particularly the intended beneficiary group. Each of these three perspectives can function as either a supporting or an inhibiting factor in policy implementation.

2.5 Information Systems and the Local Government Information System (SIPD)

A system is an interconnected collection of parts, each holding a distinct function, working together to achieve a planned objective. Kumorotomo (1994) defines a system as an organized, interacting, interdependent, integrated collection of elements, components, or variables, while Jogiyanto (2009) similarly frames it as a collection of interrelated components forming a unity to achieve a particular objective. Information, following Davis (1999), is data processed into a form meaningful to its recipient for present or future decision-making, while Notoatmodjo (2008) adds that greater information availability can expand an individual's knowledge and, through that knowledge, generate awareness shaping behavior consistent with that knowledge. An information system, following Davis (1991), is a system receiving data and instruction as input, processing that data consistent with instruction, and producing output; McLeod (2010) frames a system as a group of interconnected elements sharing a common purpose, with information systems combining working procedure, information, people, and information technology in an organized way to support managerial process.

Within modern government bureaucracy, a Government Management Information System functions as a strategic instrument for processing public and administrative data, aimed at generating transparency, strengthening accountability, and providing an accurate data foundation for apparatus and regional heads in formulating public policy and controlling regional work programs. Contemporary government information systems increasingly adopt web-based technology, offering high accessibility for both civil apparatus and the public regardless of time or specific hardware, streamlining bureaucratic procedure and accelerating real-time public-service delivery. System effectiveness rests substantially on data integration, unifying data from varied sources into a single, integrated database, avoiding duplication and reconciling informational discrepancy across work units.

Article 1(12) of Permendagri No. 70 of 2019 defines SIPD as the management of regional development information, regional financial information, and other interconnected local government information utilized in regional development administration. Permendagri No. 70 of 2019 forms the legal basis for synchronizing regional planning, budgeting, treasury administration, and APBD accountability processes through a web-based application, developed to provide integrated regional government information service accessible through the Ministry of Home Affairs' official platform. Article 2 of the regulation specifies SIPD's scope as encompassing regional development information, supporting preparation of the RPJPD, RPJMD, Renstra, RKPD, and Renja documents; regional financial information, encompassing regional budget planning, financial implementation and administration, financial accounting and reporting, financial-execution accountability, and regional asset and other financial data; and other local government information, encompassing the Regional Government Administration Report (LPPD), regional regulations, and other general information. With the regulation's enactment, all regional governments are required to use SIPD across the full planning-through-accountability cycle, replacing previously used regional-specific applications.

According to Pesak et al. (2021), SIPD's principal objectives include improving planning and decision-making quality at both regional and central levels; easing monitoring and evaluation of regional government administration; providing relevant data and information for sound regional development planning and policy; supporting the establishment of regional problem priorities; improving public-policy product quality; and advancing regional economic potential. Inzany et al. (2022) similarly note that the integrated web-based application aims to accelerate and ease public-service oversight and evaluation by regional governments nationwide, with SIPD envisioned as a single-data regional financial management system easing central-government oversight of regional financial data.

The transition from the legacy SIPD to SIPD-RI represents a comprehensive systems-architecture transformation rather than a mere visual redesign. The legacy SIPD employed a monolithic architecture, in which planning, budgeting, and treasury-administration modules were stacked on a single large server, frequently generating slowdown or crash when thousands of civil servants nationwide accessed the system simultaneously during

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budget-input season. SIPD-RI, by contrast, employs a microservices architecture, dividing the system into smaller, interconnected services such that congestion in one module, such as planning, does not immediately paralyze treasury-administration or reporting modules, yielding markedly more stable and rapid performance. Whereas the legacy SIPD often left regions using the application only for planning and budgeting while treasury administration and financial reporting required migration to, or re-input within, separate applications such as SIMDA Keuangan, SIPD-RI is designed as a single platform in which the entire cycle, from planning, budgeting, and treasury administration through accounting and financial reporting, is fully integrated within one digital ecosystem.

2.6 Prior Research

Table 3 summarizes seven studies judged most directly relevant to this study's focus on SIPD policy implementation.

Table 3. Summary of Prior Studies on Local Government Information System (SIPD) Implementation

Study	Focus / Location	Key Finding	Research Gap
Fahruza & Najamudin (2022)	Library and Archives Office, West Aceh Regency	SIPD implementation remained suboptimal, with the treasury-administration function still reliant on the legacy SIMDA application alongside SIPD for planning	Focuses on dual-application misalignment; a gap remains in analyzing full data-migration strategy toward fully integrated treasury administration without a companion application
Hasanah et al. (2025)	BPKAD, Jember Regency	SIPD plays a crucial role in supporting improved regional financial and asset governance, contingent on infrastructure, HR capacity, and stronger policy support	Focuses on general organizational-support factors; lacks a specific quantitative model for measuring post-implementation efficiency and accountability
Vitriana et al. (2022)	BPKAD, Pekanbaru City (Edward III model)	Implementation remained suboptimal across communication, resources, disposition, and bureaucratic structure; online (Zoom) socialization proved insufficiently clear, and cross-divisional adaptation remained difficult	Confirms remote-communication and inter-divisional fragmentation obstacles; a gap remains in change-management models for addressing internal adaptation resistance
Dewi et al. (2023)	Department of Food Crops, Horticulture and Plantation, Donggala Regency	SIPD implemented for development planning but not fully for financial management, constrained by inadequate HR, bureaucratic-structure misalignment with duties, and network problems	Focuses on fundamental technical obstacles and technical-OPD HR competency; a gap remains in offline-to-online local network interconnection solutions
Saputra et al. (2025)	BPKAD, Bontang City	Implementation proceeded reasonably well though not fully optimal; general socialization was effective but technical-application socialization was not; HR capacity remained inadequate	Finds bureaucratic disposition already favorable but weak in applied technical guidance; a gap remains in sustainable training or embedded internal assistance models
Wurara et al. (2020)	Manado City (Edward III model)	Communication and bureaucratic structure functioned according to duty and function, though human and financial resources remained inadequate for full local development information-system realization	Focuses on the regional planning agency's role in macro-planning stages; a gap remains regarding budget-execution integration between planning and BPKAD-level execution
Noor & Suwandi (2023)	Department of Food, Fishery, and Horticulture Security, Tabalong Regency	The resource dimension of SIPD implementation in financial planning was found to have been successfully realized	Examines a single variable (resources) in isolation; a gap remains in linking resource-dimension success to real budget-document quality or preparation-time compliance

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Source: Synthesized by the author from the reviewed literature.

Building on this comparison, the present study offers novelty in its research site, examining Magetan Regency's BPKPD specifically, an institution with distinct fiscal characteristics, staffing conditions, and network infrastructure relative to the loci examined in prior research; its temporal scope, examining implementation during the 2024-2025 transition period in which the treasury-administration and accounting-and-reporting modules had only recently become accessible on SIPD-RI; and its analytical focus, combining Edward III's four implementation variables with specific attention to the informal, peer-to-peer coordination networks (inter-regional operator communities) that emerged as a distinctive coping mechanism in this study's findings, a dimension not extensively examined in the comparator studies reviewed.

3. Research Methods

3.1 Research Approach

This study employed a qualitative approach with a descriptive research design. Sugiyono (2017) explains that qualitative research method is used to examine natural-object conditions, in which the researcher functions as the key instrument, data collection is conducted through triangulation, data analysis is inductive, and research outcomes emphasize meaning over generalization. This study's qualitative method employed descriptive research, defined by Bahari (2018) as research aimed at systematically describing a condition or object of concern without comparison, rarely generating formal hypotheses, and describing field facts objectively, with the researcher observing the research object naturally as the key instrument.

This qualitative descriptive approach was judged highly relevant for examining SIPD implementation at Magetan's BPKPD for several reasons. First, SIPD implementation is not merely a technical application matter but a complex phenomenon involving bureaucratic behavioral adaptation, apparatus commitment, working-culture change, and field-level HR-capacity constraints, dynamics not accurately measurable through numbers or statistics alone but requiring in-depth contextual data. Second, the descriptive method enables the researcher to depict, comprehensively and objectively, the system-transition mechanism, financial-administration process, and technical obstacles actually experienced by BPKPD staff. Third, the researcher's position as key instrument enables direct observation and in-depth interviewing to explore the perspective, resistance, and adaptation strategy of policy implementers, presenting a natural, meaningful account of SIPD implementation without manipulating the research subject's condition.

3.2 Research Scope and Site

The research scope was operationally bounded to several aspects: SIPD implementation, specifically within the Budgeting, Treasury Administration, and Financial Accountability Modules; the research site, bounded to Magetan Regency's BPKPD, with analytical focus on the Budgeting, Treasury, and Accounting Divisions as the work units coordinating these modules' operationalization; and the observation period, bounded to the system-transition and implementation period during the 2025 fiscal year. Within these boundaries, the study examines in depth the implementation process and identifies the supporting and inhibiting factors Magetan's BPKPD encounters in applying the system. The study was conducted at BPKPD Kabupaten Magetan, specifically its Budgeting, Treasury, and Accounting Divisions as the technical units executing SIPD, selected because BPKPD functions as the leading sector in SIPD application, serving as the operator responsible for budget-planning, budget-administration, and budget-reporting-and-accountability document preparation.

3.3 Research Focus

Consistent with the research problem, the study focus was organized around Edward III's four implementation dimensions, encompassing communication, examining SIPD socialization and technical-guidance process and the clarity and consistency of central-to-regional instruction and regulation; resources, examining staff IT and financial competency and supporting-facility adequacy, including internet network, server, and PC devices; disposition, examining staff commitment to and readiness for SIPD migration and adaptation, and leadership commitment in ensuring policy consistency; and bureaucratic structure, examining SOP clarity, inter-divisional coordination pattern, and authority and access-right division across divisions.

3.4 Research Instrument

The researcher constituted the principal research instrument, supported by an interview guide developed from Edward III's implementation-model indicators, covering communication, resources, disposition, and bureaucratic structure, and by supporting tools including writing implements, notebooks, and camera or mobile-phone recording devices used to document and record research activity as supporting evidence.

3.5 Informants

Informants were selected through purposive sampling, following Sugiyono's (2017) characterization of purposive sampling as a data-source sampling technique grounded in particular considerations, such as the informant's presumed knowledge of the phenomenon under study. Selection criteria required informants to possess knowledge and understanding of the SIPD application; to serve as implementers of SIPD-application policy, thereby possessing direct experience of implementation phenomena relevant to the research; and to have sufficient time and willingness to be interviewed. Table 4 presents the resulting informant composition.

Table 4. Profile of Research Informants

No.	Position	Informant Code	Reason for Selection
1	Head of BPKPD, Magetan Regency	Informant 01	Highest-ranking official (regional financial manager) holding full authority, strategic policy direction, and comprehensive understanding of SIPD implementation
2	Head of the Budgeting Division	Informant 02	Responsible for formulating, coordinating, and overseeing regional budget planning, and possesses technical

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No.	Position	Informant Code	Reason for Selection
			understanding of budget-document input (KUA-PPAS, RKA, APBD) into the SIPD planning/budgeting module
3	Head of the Regional Treasury Division	Informant 03	Holds direct authority over regional cash management, fund-disbursement mechanisms, SP2D issuance, and treasury administration processed through the SIPD treasury module
4	Head of the Regional Financial Accounting and Reporting Division	Informant 04	Responsible for regional government financial-statement preparation, bookkeeping, financial-data consolidation, and integrated reporting through the SIPD accounting module
5	Planning, Evaluation, and Program Analyst	Informant 05	Functions as internal program-planning operator within BPKPD's SIPD use
6	SIPD Operator, Budget Planning	Informant 06	Technical implementer and lead administrator of the budgeting module, interacting with the system daily and understanding technical obstacles and data-input flow
7	SIPD Operator, Treasury	Informant 07	Technical implementer processing daily treasury-administration input, billing verification, and SPM/SP2D preparation, and understanding real-time transaction dynamics
8	SIPD Operator, Accounting and Financial Reporting	Informant 08	Technical implementer handling accounting journals, data reconciliation, daily book closing, and financial-report drafting through the SIPD accounting menu

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

3.6 Data Collection Technique

Data collection followed Sugiyono's (2009) framework of observation, interview, documentation, and their triangulated combination. Interviews explored communication, resources, disposition and implementer attitude, bureaucratic structure, and the factors supporting and hindering SIPD implementation at Magetan's BPKPD, engaging the Head of BPKPD, division heads across Budgeting, Accounting, and Treasury, and administrators/operators within those divisions. Observation examined SIPD implementation with reference to Edward III's theory, covering network-access smoothness during operational working hours (technical aspect), inter-organizational coordination (communication aspect), HR availability, competency, and supporting facilities (resources aspect), employee attitude when adapting to new SIPD regulation or modules (disposition aspect), and the existence of SOPs or an internal helpdesk employees consult when facing application obstacles (bureaucratic-structure aspect). Documentation gathered accurate supporting data, including prevailing regulation, photographs, notes, and other written documents, encompassing Permendagri No. 70 of 2019, PPAS review results, error-screen captures, and printed RKA or DPA documents.

3.7 Data Analysis Technique

Data were analyzed using the interactive model of Miles, Huberman, and Saldana (2014), comprising four components. Data collection gathered qualitative data through in-depth interview, observation, documentation, or their triangulated combination, with the researcher documenting observed, heard, and experienced phenomena through notes, recordings, or digital photographs, and interview-audio recordings transcribed in full with clear identification of informant name, position, date, and interview location. Data condensation involved selecting, focusing, simplifying, abstracting, and transforming data drawn from written field notes, interview transcripts, documents, and other empirical material, classified to generate the focus required for analysis. Data display involved organizing and consolidating summarized, bounded information into a coherent body enabling conclusion drawing and appropriate action, presented in a harmonious form easing understanding of what has occurred and what should be done. Conclusion drawing involved interpreting the meaning of the organized and displayed data to answer the research problem, reviewing the data display to identify which variable functions as the principal support and which constitutes the greatest obstacle, and formulating a credible statement regarding SIPD implementation status at the research site.

3.8 Trustworthiness of Data

Data validity was assessed through four qualitative criteria. Credibility was established through prolonged observation engagement, heightened examination depth, source, technique, and time triangulation, negative-case analysis, supporting-reference documentation, and member checking with informants. Transferability concerned the extent to which findings could be applied to other social contexts or populations, requiring comprehensive, detailed, systematic, and transparent research description. Dependability was assessed through an audit-trail mechanism analogous to accounting audit, verifying research execution and interpretive accuracy through available raw data (audio/visual recordings, field notes, document archives, and activity photographs), reduction and analysis results (data summaries, categorization, conceptual synthesis, and draft conclusions), and methodological documentation (research design, strategy choice, procedural flow, and rationale). Confirmability, distinct from quantitative objectivity centered on the assessor, instead centers objectivity directly on data factuality, verified through ensuring findings and conclusions derive purely from field research data, confirming logical consistency between underlying data and drawn conclusions, testing the fit and depth of analysis relative to the phenomenon studied, and evaluating the adequacy of the validity-assurance procedures applied.

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4. Results

4.1 Institutional Profile

Magetan Regency's Financial and Revenue Management Agency (BPKPD) serves as the regional apparatus organization responsible for regional financial and revenue management, operating under Regent Regulation No. 6 of 2024 on Position, Organizational Structure, Duties and Functions, and Working Procedures of BPKPD. The agency's organizational structure comprises the Head of Agency, a Secretariat, and technical divisions including Budgeting, Regional Treasury, Regional Accounting and Financial Reporting, and Revenue, together with a functional position group. BPKPD functions as the leading sector for SIPD implementation in Magetan Regency, serving as the operator responsible for budget-planning document preparation, budget-administration document preparation, and budget reporting-and-accountability document preparation across all 43 regional apparatus organizations.

4.2 Communication

Communication concerns the clarity, consistency, and comprehensibility of information regarding SIPD policy, examined across transmission, clarity, and consistency. Regarding transmission, informants consistently described a structured cascade: initial socialization was obtained through direct technical guidance (bimtek) at the Ministry of Home Affairs and through Zoom sessions with the Ministry's Data and Information Center (Pusdatin) team, with results subsequently disseminated to all BPKPD staff, and BPKPD, as leading sector, additionally organizing bimtek sessions for operators across all regional apparatus organizations in Magetan Regency. As the Head of BPKPD explained, "at the beginning of SIPD implementation, we were confused because we had to quickly adapt to the new system. Our first step was to communicate with the Ministry of Home Affairs to conduct socialization... After that, we conveyed the results of the technical guidance to all BPKPD staff" (Head of BPKPD, interview, July 2, 2026). The Head of the Budgeting Division corroborated this account, adding that BPKPD also maintains informal communication with other regional governments that have successfully implemented SIPD, to share practical implementation knowledge, while the Head of the Treasury Division observed candidly that Zoom-based socialization, though necessitated by the digital era, is "not effective and does not really reach its target" (Head of Treasury Division, interview, July 2, 2026), notwithstanding continued consultation with the Ministry's technical team.

Regarding clarity, operator-level informants offered a more critical assessment. The Budgeting Division operator explained that initial socialization involved a direct visit to the Ministry of Home Affairs in Jakarta given the application's novelty, but noted that subsequent unannounced updates were rarely accompanied by adequate central-government socialization (Budgeting Division operator, interview, June 25, 2026). The Accounting Division operator similarly reported that the Ministry's helpdesk, while formally available, responds too slowly and without complete resolution to reported problems (Accounting Division operator, interview, June 26, 2026), while the Planning, Evaluation, and Program Analyst noted that early socialization, conducted predominantly online, produced insufficiently deep technical understanding, compounded by delayed guidance-document updates when application features changed (Planning Analyst, interview, June 25, 2026).

Regarding consistency, informants described a staged rather than simultaneous implementation timeline necessitated by module-availability constraints rather than regional reluctance. The Treasury Division operator explained that modules beyond budgeting only became available starting in 2024, at which point Magetan committed to full SIPD adoption across planning, budgeting, treasury administration, and accounting and reporting, having relied on external programming support to process SIPD data into required reporting formats during the interim period (Treasury Division operator, interview, June 26, 2026). The Budgeting Division operator further noted that annual socialization, though regularly conducted, occurs predominantly via Zoom owing to budget constraints, supplemented by informal knowledge-sharing among operators within BPKPD and across other regional apparatus organizations regarding annual application and regulatory updates, particularly expenditure-account-code changes (Budgeting Division operator, interview, June 25, 2026). Leadership commitment to SIPD as a single application was affirmed directly by the Head of BPKPD, who described routine bimtek, coordination, and mentoring instructions to staff, alongside participation in a nationwide inter-BPKPD WhatsApp coordination group and reliance on manual working-paper backup, rather than a companion application, when system disruption occurs (Head of BPKPD, interview, July 2, 2026).

Overall, communication in SIPD implementation functioned reasonably well, supported by multiple institutional communication channels, though vertical communication with the Ministry of Home Affairs, particularly through Zoom-based socialization, was widely regarded as less effective than in-person guidance.

4.3 Resources

Resource adequacy, encompassing human-resource competency, facilities and infrastructure, and budget support, emerged as an area of both institutional strength and specific constraint. The Head of the Accounting Division reported that operator numbers across most divisions were adequate, with the notable exception of the Budgeting and Accounting Divisions, each staffed with only three personnel; she further explained that competency gaps have been substantially addressed through routine technical guidance and Training of Trainer (ToT) participation, alongside a nationwide inter-operator WhatsApp community that proved, in her assessment, more genuinely helpful for problem-solving than direct Ministry support: "this really helps us a lot, actually more from that community than from the Ministry of Home Affairs directly, but more from the community of fellow operators" (Head of Accounting Division, interview, July 2, 2026). The Head of the Treasury Division similarly noted that while operators ideally should hold computer-science or finance educational backgrounds, ongoing mentoring and bimtek have helped bridge this gap, while separately identifying network and server capacity, both centrally and locally, as a persistent constraint requiring continued advocacy to the Ministry and the regional communications office for regional server segmentation to reduce national server load (Head of Treasury Division, interview, July 2, 2026).

The Head of BPKPD further explained that while operator competency has generally improved through routine training, some staff, particularly older personnel or those with less directly relevant educational backgrounds, continue to require support; the agency has allocated modest training budget notwithstanding current efficiency constraints, alongside overtime compensation for

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operators frequently required to work beyond regular hours owing to server error during input periods, while noting that Magetan's network infrastructure would benefit from a dedicated SIPD server (Head of BPKPD, interview, July 2, 2026).

Overall, human resources concern implementer quantity and competency, while financial resources concern budget availability supporting facilities, infrastructure, and policy-relevant information. Resources supporting SIPD implementation in Magetan have been strengthened through capacity-building for BPKPD's own operators and OPD operators regency-wide; the resources indicator can accordingly be assessed as adequate in supporting SIPD implementation, though continued strengthening is required for implementation to more fully achieve SIPD's intended objectives.

4.4 Disposition

Disposition, or implementer attitude, concerns the commitment and willingness with which policy is executed; adequate communication and resources alone prove insufficient absent implementer commitment. This study's findings indicate an initial period of resistance giving way to sustained institutional commitment. Field observation and interview data indicate that BPKPD staff broadly regard SIPD favorably as a tool improving discipline, transparency, and financial-management professionalism, with leadership actively reinforcing this orientation through routine mentoring, coordination, and participation in the nationwide inter-BPKPD operator community described above. Implementers' own account of early-implementation difficulty, including initial staff confusion and adaptation challenges accompanying the treasury-administration and accounting-module rollout in 2024, indicates that disposition strengthened progressively as staff gained familiarity with the system rather than being uniformly positive from the outset.

4.5 Bureaucratic Structure

Bureaucratic structure concerns task division, authority, coordination, and standard procedure supporting implementation. Field data indicate that SIPD's account-based authority structure, comprising OPD-head accounts as budget users, verification-official accounts, activity-official accounts, and operator accounts, is enforced automatically by the application itself, providing clear, system-locked task and authority division consistent with each role's formal duties. Informants nonetheless identified a specific structural gap: while system-level authority division functions well, BPKPD had not yet formalized a written local standard operating procedure governing SIPD operationalization, including internal coordination flow, tiered reporting mechanisms during system disruption, and data-risk mitigation protocols when the central server experiences disruption, an absence identified as a priority area for institutional strengthening.

4.6 Supporting and Inhibiting Factors

Table 5 summarizes the principal internal and external factors identified as hindering SIPD implementation, while Table 6 summarizes the principal supporting factors.

Table 5. Factors Inhibiting SIPD Implementation at BPKPD Kabupaten Magetan

Category	Inhibiting Factor	Description
Internal	Limited staffing in critical divisions	The Budgeting and Accounting Divisions each operate with only three staff, generating dual workload during server disruption or document error requiring manual verification
Internal	Data-validation and synchronization gaps	Data occasionally fails to flow correctly from the treasury-administration module to the accounting module, requiring manual reconciliation between the two data sets
Internal	Account-code mapping imperfection	Incomplete mapping of updated expenditure-account codes generates misplaced figures requiring manual validation before financial-accountability reporting
External	Central server capacity constraints	National server congestion, compounded by the system serving all Indonesian regions simultaneously, disrupts network access, particularly during peak input periods
External	Slow and inconsistent helpdesk response	The Ministry of Home Affairs' Pusdatin technical team responds slowly to reported problems, with response quality perceived as inconsistent across reporting regions
External	Insufficient advance notice of system updates	Feature and regulatory updates, including expenditure-account-code changes, are frequently issued without adequate prior socialization

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

Table 6. Factors Supporting SIPD Implementation at BPKPD Kabupaten Magetan

Category	Supporting Factor	Description
Internal	Clear regulatory and legal foundation	Permendagri No. 70 of 2019, Articles 4 and 17, provides unambiguous legal grounding for BPKPD's role as SIPD leading sector
Internal	Budget support for capacity building	BPKPD allocates budget for independent technical guidance (bimtek) and overtime compensation for operators despite current efficiency constraints

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Category	Supporting Factor	Description
Internal	Leadership commitment	Sustained leadership direction, mentoring, and coordination reinforce consistent SIPD application across divisions
External	Inter-regional operator coordination	A nationwide, informal WhatsApp community among BPKPD/BPKAD operators enables peer-to-peer problem-solving that regional staff describe as more responsive than central-government channels
External	Comparative learning from other regions	Active coordination with regional governments that have more fully implemented SIPD provides practical implementation guidance

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

5. Discussion

5.1 Communication: Effective Horizontally, Constrained Vertically

Read through Edward III's (1980) transmission, clarity, and consistency indicators, this study's communication findings reveal an asymmetry between horizontal and vertical communication channels. Horizontal communication, both within BPKPD and across regional governments nationally, functioned effectively, consistent with the transmission indicator's requirement that information reach relevant personnel accurately. Vertical communication with the Ministry of Home Affairs, by contrast, satisfied the transmission requirement, information did reach the region, but fell short on the clarity indicator, given informants' consistent characterization of Zoom-based socialization as insufficiently effective and helpdesk response as slow. This finding refines Edward III's model by suggesting that in a national digital-system rollout, transmission and clarity may diverge systematically by communication direction, information can travel from center to region reliably in volume while remaining inadequately clear in substance, a distinction with direct implications for how central agencies should design socialization delivery.

5.2 Resources: Institutional Adequacy alongside Critical Staffing Gaps

The resources findings indicate that Magetan's BPKPD has achieved substantial competency development through structured training and, notably, through an informal peer-to-peer operator network that staff themselves describe as more valuable than formal Ministry channels. This finding extends Edward III's staff indicator, which emphasizes formal competency and placement, by highlighting those informal professional networks can function as a meaningful supplementary resource in digital-policy implementation, particularly where formal support channels prove slow or inconsistent. At the same time, the persistent three-person staffing constraint in the Budgeting and Accounting Divisions illustrates Edward III's caution that resource quantity, not only competency, materially shapes implementation capacity: even highly competent staff cannot fully absorb the dual workload generated by manual verification during system disruption without risking burnout or error.

5.3 Disposition: From Initial Resistance to Institutional Commitment

Consistent with Edward III's proposition that positive implementer disposition, once achieved, sustains policy execution, this study's findings show that Magetan's BPKPD moved from an initial period of confusion and adaptation difficulty toward sustained institutional commitment, reinforced by leadership exemplarity and structured mentoring. This trajectory is consistent with Saputra et al.'s (2025) finding in Bontang City that bureaucratic disposition, while favorable, still required stronger applied technical guidance to fully translate into confident system use, a pattern this study's findings corroborate through the continued reliance on informal peer support even after formal disposition had strengthened.

5.4 Bureaucratic Structure: System-Enforced Authority without a Formal Local SOP

This study's most distinctive bureaucratic-structure finding is the coexistence of strong system-enforced authority division, since SIPD's account-based access control leaves little room for informal task-boundary violation, with the absence of a formalized local standard operating procedure governing coordination, escalation, and data-risk mitigation during system disruption. This finding suggests that Edward III's bureaucratic-structure variable, in the context of a centrally administered digital system, bifurcates into two distinct components: structure embedded within the technology itself, which this study finds to be robust, and structure governing the surrounding human coordination process during system failure, which this study finds to be comparatively underdeveloped. This distinction has direct practical significance, since a well-designed digital system cannot substitute for a documented local contingency protocol when that system itself experiences disruption.

5.5 Comparison with Prior Studies

These findings both corroborate and extend the prior literature summarized in Table 3. Consistent with Vitriana et al. (2022) in Pekanbaru, this study confirms that Zoom-based central-government socialization constitutes a recurring communication weakness in SIPD implementation nationally. Consistent with Dewi et al. (2023) in Donggala and Wurara et al. (2020) in Manado, this study confirms that HR and network-infrastructure limitations remain persistent implementation constraints even in generally successful cases. The study extends this literature in two respects: first, by documenting the specific role of informal, nationwide inter-operator coordination networks as a resource-supplementing mechanism not extensively examined in the comparator studies; and second, by identifying the bifurcation between system-embedded and human-coordination dimensions of bureaucratic structure, a distinction with relevance for evaluating similarly centralized digital-government systems beyond the SIPD context specifically.

6. Conclusion

6.1 Summary of Findings

This study examined the implementation of Permendagri No. 70 of 2019 on SIPD at Magetan Regency's BPKPD using George C. Edward III's implementation model. On communication, horizontal

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and inter-regional socialization and coordination functioned effectively, while vertical communication with the Ministry of Home Affairs was constrained by reliance on Zoom-based socialization, slow helpdesk response, and insufficiently anticipated system updates. On resources, human-resource quantity in the Budgeting and Accounting Divisions remained critically limited at three staff each, generating dual workload during system disruption, while competency gaps were substantially addressed through structured training and an informal, nationwide inter-operator community; local network infrastructure remained a persistent constraint. On disposition, initial staff resistance gave way to sustained institutional commitment, reinforced by leadership exemplarity and continuous mentoring. On bureaucratic structure, system-enforced authority division functioned effectively, though a formal, written local standard operating procedure for SIPD operationalization, including contingency protocol during system disruption, had not yet been established.

6.2 Theoretical Implications

This study reinforces Edward III's proposition that communication, resources, disposition, and bureaucratic structure jointly determine implementation success, while extending the model in two respects specific to centrally administered digital-government policy: first, by showing that communication effectiveness can diverge systematically between horizontal, peer-level channels and vertical, central-to-regional channels, and second, by showing that bureaucratic structure itself bifurcates into a system-embedded dimension, often robust in digital systems with automated access control, and a human-coordination dimension governing contingency response, which may lag behind. The study further demonstrates that informal professional networks can function as a meaningful supplementary resource in digital-policy implementation, a dimension warranting more systematic attention in future implementation-theory research.

6.3 Practical Implications

For BPKPD Kabupaten Magetan, the findings support formalizing a written local standard operating procedure for SIPD operationalization, ratified through a Regent Decree, covering budget-input procedure, treasury-administration input procedure, accounting-and-reporting input procedure, and system-disruption reporting and mitigation procedure; conducting workload analysis to justify additional technical staffing in the Budgeting and Accounting Divisions, prioritizing candidates with accounting, finance, or computer-science backgrounds; and formalizing the existing informal inter-OPD coordination network into a structured, periodic coordination forum to ensure more consistent, equitable problem-solving support across all regional apparatus organizations. For the Magetan Regency Communications and Informatics Office, the findings support developing dedicated, isolated server capacity for regional financial-management data, separate from other sectoral applications, alongside periodic local backup infrastructure mitigating central-server disruption risk. For OPD users of SIPD generally, the findings support prompt expenditure-detail input immediately upon release of indicative budget ceilings, and formal designation of both a primary and a backup SIPD operator per OPD to ensure input continuity. For the Ministry of Home Affairs as SIPD's central developer, the findings support evaluating national server-infrastructure reliability, considering regional server segmentation to reduce central network load, strengthening equitable and time-bound technical-complaint response, and providing mature operational guidance documentation together with adequate transition periods before releasing feature or account-code updates.

6.4 Limitations of the Study

This study is subject to several limitations. First, it is confined to a single regional agency in a single regency, meaning its findings cannot be generalized to other regions' SIPD implementation without further comparative research. Second, the qualitative descriptive design, involving eight informants, privileges contextual depth over statistical generalization, meaning the patterns identified should be read as context-grounded findings specific to Magetan's institutional and infrastructural conditions. Third, the study centers on the perspective of BPKPD implementers; it does not directly capture the perspective of the Ministry of Home Affairs' central SIPD-development team, whose account of infrastructure and socialization constraints could usefully complement this study's regional-implementer-centered findings.

6.5 Recommendations for Future Research

Future research could extend this study through comparative analysis between high-fiscal-capacity and low-fiscal-capacity regions in adapting SIPD, to determine whether the staffing and infrastructure constraints identified here reflect a broader pattern shaped by regional fiscal capacity. Future studies might also examine the long-term impact of SIPD implementation on regional budget transparency, and apply alternative policy-implementation models to enrich the scholarly understanding of centralized digital-government-system adoption at the regional level.

Taken as a whole, the Magetan Regency case suggests that centrally administered digital-government systems can achieve strong system-embedded structural control and gradually strengthening implementer commitment, while still requiring deliberate local institutional investment, in staffing, formal contingency procedure, and infrastructure resilience, to fully translate national policy mandate into consistently reliable regional financial governance.

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