

The Role of the Local Government Information System (SIPD) in Regional Revenue and Expenditure Budget Planning

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Abstract

This study analyzes the implementation of the Local Government Information System (SIPD) in the planning of the Regional Revenue and Expenditure Budget (APBD). As a key national policy for bureaucratic reform, SIPD aims to integrate regional development planning, financial data, and governance information into a single online platform to enhance transparency and efficiency. Using a qualitative descriptive method with a literature study approach, this research evaluates the system's effectiveness through the lens of George C. Edward III's policy implementation theory, focusing on the variables of communication, resources, disposition, and bureaucratic structure. The findings indicate that while SIPD has successfully improved data synchronization and streamlined the budgetary planning process, significant challenges persist. The main obstacles include insufficient human resource capacity, with many operators lacking proficiency, leading to a reliance on close supervision. Furthermore, technical issues such as system errors and inadequate infrastructure often disrupt financial workflows and cause reporting delays. The study concludes that the technological potential of SIPD is not yet fully realized due to these resource and communication bottlenecks. To optimize its role, a concerted effort to strengthen human resources through comprehensive training and to improve technical support is essential. This enhancement is crucial for solidifying SIPD's contribution to effective regional development and fiscal governance.

Keywords: Local Government Information System (SIPD), Public Sector Innovation, Fiscal Governance, Policy Implementation, Regional Revenue and Expenditure Budget (APBD)

INTRODUCTION

The dawn of the digital age has fundamentally transformed the landscape of public administration worldwide, compelling governments to embrace technological innovation as a cornerstone of modern governance. This global shift towards digital government, or e-government, is driven by an imperative to enhance efficiency, transparency, and accountability in public service delivery. In Indonesia, this transformation is not merely a trend but a strategic necessity, articulated through national policies that advocate for a System of Electronic-Based Government (SPBE). The ultimate goal is to realize good governance—a paradigm characterized by competence, transparency, accountability, and public participation—which is essential for fostering public trust and accelerating national development. Within this broader context of bureaucratic reform, the management of regional finances stands as a critical domain where the application of information technology can yield significant dividends in terms of fiscal discipline and strategic resource allocation.

The Regional Revenue and Expenditure Budget (APBD) serves as the fundamental financial blueprint for local governments, dictating the pace and direction of regional development. Its formulation is a complex process that involves multiple stakeholders and requires a high degree of coordination, accuracy, and foresight. Traditionally, this process has been plagued by challenges such as disjointed planning, manual data entry errors, and limited

transparency, leading to inefficiencies and potential mismanagement of public funds. Recognizing these shortcomings, the Indonesian government, through the Ministry of Home Affairs, initiated a pivotal intervention by introducing the Local Government Information System (SIPD). Formally regulated under Permendagri No. 70 of 2019, SIPD is designed as an integrated, online-based platform to unify and streamline the entire spectrum of regional financial and development planning.

SIPD represents a monumental leap from legacy systems like SIMDA (Sistem Informasi Manajemen Daerah) and SIPKD (Sistem Informasi Pengelolaan Keuangan Daerah). Its mandate is to create a single, cohesive data ecosystem that encompasses not only financial information but also regional development plans, asset management, and other governmental data. By digitizing and integrating these processes, SIPD is expected to facilitate real-time data synchronization across all Regional Apparatus Organizations (OPD), minimize discrepancies in budget documents, and provide a transparent channel for public accountability. The system is intended to be the backbone of a more innovative, responsive, and data-driven local government structure, directly supporting the national agenda of "One Data Indonesia."

However, the transition from policy intent to tangible outcomes is often fraught with challenges. The successful implementation of a complex technological system like SIPD is not guaranteed by its technical design alone. It is profoundly influenced by a multitude of factors on the ground. Preliminary studies and field observations, including those in regions such as North Sumatra, Pekanbaru, and Manado, have indicated a mixed performance. While some government offices report increased speed and ease in preparing budget documents like the DPA (Dokumen Pelaksanaan Anggaran) and RKA (Rencana Kerja dan Anggaran), a significant number of users struggle with the system's operation. Common issues include frequent system errors, a lack of comprehensive technical training, and a fundamental gap in the digital literacy of human resources. In some cases, the simultaneous use of SIPD and older systems has created dual workloads and data synchronization problems, further complicating the workflow instead of simplifying it.

Therefore, this research aims to provide a critical and comprehensive analysis of the implementation of the Local Government Information System (SIPD) in the planning of the Regional Revenue and Expenditure Budget (APBD). It seeks to identify the key facilitating factors and, more importantly, the significant barriers hindering its optimal performance. The findings of this study are expected to contribute valuable insights for policymakers at both the central and local government levels, offering evidence-based recommendations to strengthen the implementation strategy, enhance human resource capacity, and ultimately unlock the full potential of SIPD as a catalyst for transparent, efficient, and accountable regional financial governance in Indonesia.

RESEARCH METHODS

Research Design

This study employs a qualitative research method with a descriptive approach. The qualitative approach was selected because the research aims to understand the complex phenomena surrounding the implementation of the Local Government Information System

(SIPD) in a real-world context, focusing on the perspectives, experiences, and challenges faced by the implementers. This paradigm is particularly effective for exploring the "how" and "why" of a contemporary issue within its natural setting. A descriptive design is utilized to provide a systematic, factual, and accurate description of the characteristics, processes, and relationships associated with SIPD implementation. This design does not seek to manipulate variables but rather to portray the situation as it exists, making it ideal for mapping out the landscape of challenges and successes based on the lived experiences of government personnel.

Data Source and Collection Technique

The research utilizes two types of data sources: primary and secondary data. Primary data was gathered directly from informants who are actively involved in the operation and management of SIPD. The sampling technique used was purposive sampling, where participants are selected based on their specific knowledge and role related to the research topic. Key informants included heads of budgetary departments, treasury officials, and staff from accounting and reporting sub-divisions within local government agencies, specifically from regions that have implemented SIPD, such as North Sumatra, Pekanbaru, and Manado. Data collection was conducted through in-depth, semi-structured interviews. This method allowed for guided exploration of key themes—such as communication, resource adequacy, and bureaucratic hurdles—while providing the flexibility to probe deeper into emerging issues. An interview guide was used to ensure all relevant topics from the theoretical framework were covered.

Secondary data was collected to provide context and support the primary findings. This included a comprehensive review of documents such as Government Regulations (e.g., Permendagri No. 70 of 2019 on SIPD), previous research journals, official reports, and relevant news articles. This document analysis helped to triangulate the information obtained from interviews, thereby enhancing the validity and reliability of the research findings.

RESULTS AND DISCUSSION

This section presents and discusses the empirical findings on the implementation of the Local Government Information System (SIPD) across various local governments in Indonesia, including North Sumatra, Pekanbaru, and Manado. The analysis is organized using George C. Edward III's theoretical framework, examining the four critical variables of implementation: Communication, Resources, Disposition, and Bureaucratic Structure. This structured approach allows for a systematic diagnosis of the factors driving and hindering the effective adoption of SIPD.

Communication: Inconsistent Transmission and Clarity

Effective communication is the cornerstone of successful policy implementation, encompassing the transmission, clarity, and consistency of policy directives. The findings reveal significant shortcomings in this variable, which have profoundly impacted the rollout of SIPD. A primary issue identified was the inadequacy of socialization and training methods. In multiple regions, including Pekanbaru and North Sumatra, socialization was conducted primarily online via platforms like Zoom, often without follow-up practical training. As noted by an official from the Pekanbaru BPKAD, "There was socialization, but it was less effective because it was during COVID, so it was only done online via Zoom. There was no special training from the central government, so we had to practice on our own." This reliance on one-way, virtual communication

failed to equip users with the hands-on skills needed to navigate the complex SIPD interface. The training was perceived as theoretical rather than practical, leaving many operators confused about specific procedures for data input, synchronization, and troubleshooting.

Furthermore, **the** inconsistency in policy commands created confusion and operational inefficiencies. The initial mandate from the Ministry of Home Affairs required all OPDs to fully transition to SIPD. However, due to widespread technical glitches and data synchronization problems encountered in the early stages, many local governments, such as in Pekanbaru, were forced to revert to or concurrently use the old system, SIPKD. An official from the Pekanbaru accounting sub-division explained, "Currently, BPKAD Pekanbaru uses both SIPD and SIPKD. The budget sector uses SIPD, then the data is copied and transferred to SIPKD." This inconsistent messaging from the central government undermined the authority of the initial policy and signaled a lack of full confidence in the new system, leading to a "half-hearted" implementation at the local level.

The lack of a clear and responsive feedback channel also hampered communication. While the Ministry of Home Affairs established a technical team, the responsiveness to field-level problems was often slow. Officials in Manado reported delays in receiving responses from the central government when requesting deadline extensions due to leadership transitions. This slow feedback loop meant that operational problems persisted for extended periods, frustrating users and reinforcing their reliance on legacy systems. In sum, the communication surrounding SIPD's implementation was marked by insufficient practical training, inconsistent commands, and delayed support, which collectively eroded the clarity and coherence necessary for smooth adoption.

Resources: The Critical Deficit in Human and Tecnological Capacity

The variable of resources examines the adequacy of human resources, information, technology, and financial support. The findings indicate that a severe resource deficit, particularly in human capital and technological infrastructure, is the most significant barrier to SIPD's effective implementation.

The inadequacy of Human Resources (HR) competence is a recurring theme across all case studies. Despite having a young workforce, a substantial proportion of operators—estimated at 60-70% in the North Sumatra Industry and Trade Office—lacked a comprehensive understanding of the system. This was not necessarily due to a lack of intellectual capacity but rather a lack of targeted and continuous capacity building. The transition from simpler or different systems like SIMDA to the more complex and integrated SIPD required a new set of digital literacy and analytical skills that were not effectively instilled through the initial, limited training. As a result, even basic data input tasks were prone to errors, leading to incorrect reports and budgetary discrepancies. This skills gap created a high dependency on supervision, where a few proficient staff members had to oversee and correct the work of the majority, thus negating the efficiency gains promised by the system.

Moreover, the technological infrastructure and system stability were frequently reported as major obstacles. Users across different regions complained about frequent system errors, especially during peak working hours when many OPDs were accessing the platform simultaneously. This resulted in bottlenecks, preventing timely data entry and disrupting critical financial workflows, including payroll processing and the creation of payment orders (SPP/SPM). An official from Medan BPKAD highlighted issues such as "delayed budget shifts, hampered payroll systems, and frequent SIPD network errors." These technical glitches point to

potential problems with server capacity, software bugs, or inadequate local internet bandwidth. The promise of a seamless, real-time online system was broken by these persistent technical failures, which not only slowed down work but also fostered resentment and distrust toward the new system.

Finally, while not always explicitly stated, the financial resources allocated for the transition appear to have been insufficient. A successful digital transformation requires not only software but also investments in hardware upgrades, reliable high-speed internet connections, and a budget for ongoing, intensive training. The evidence suggests that the funding was primarily directed at the central development of the SIPD application, with inadequate trickle-down to the local level for these crucial complementary investments. Consequently, the resource variable, encompassing under-skilled personnel, unstable technology, and likely insufficient funding, formed a critical bottleneck that severely constrained SIPD's performance.

Disposition: Reluctant Acceptance Amidst Operational Hardship

Disposition refers to the attitudes, tendencies, and acceptance of the implementers—the civil servants tasked with using SIPD daily. The research findings reveal a disposition characterized by pragmatic acceptance rather than enthusiastic adoption, heavily influenced by the system's operational performance.

On the surface, officials acknowledged the inherent benefits and necessity of SIPD. They agreed with the policy's objectives, such as national data integration, transparency, and standardized systems across Indonesia. An official from Pekanbaru stated, "Personally, I agree with SIPD because this system is designed to facilitate data synchronization between OPDs in Indonesia and standardize the systems used." This indicates a cognitive acceptance of the policy's long-term goals and its alignment with broader principles of good governance.

However, this theoretical agreement was often overshadowed by frustration with the implementation process. The most common sentiment was that the transition was too rushed. Implementers felt that the central government mandated a swift, nationwide rollout without ensuring the system was fully stable or that users were adequately prepared. The same official from Pekanbaru expressed this frustration, adding, "However, I disagree with mandating its implementation so quickly... it actually makes it difficult for OPDs to use two applications." This forced rapid adoption, compounded by the technical and training issues previously discussed, led to significant operational difficulties. When a new system complicates rather than simplifies daily tasks, it naturally breeds resistance and a negative disposition.

This negative disposition manifested in continued reliance on legacy systems. The parallel use of SIPD and SIPKD in Pekanbaru and the nostalgia for the "more comfortable" and "directly connected" SIMDA system in other areas are clear behavioral indicators of this reluctance. This "workaround" mentality signifies a lack of full buy-in. While implementers complied with the mandate to use SIPD for certain stages (like planning and budgeting), their disposition was to minimize its use in favor of systems they perceived as more reliable and user-friendly. Therefore, the disposition of implementers was not one of outright rejection but a cautious and often reluctant acceptance, which was highly contingent on the system's stability and the absence of operational hardships.

Bureaucratic Structure: Navigating Hierarchies and Fragmented Processes

The final variable, bureaucratic structure, examines how the formal and informal characteristics of government organizations influenced implementation. This includes standard

operating procedures (SOPs), hierarchical coordination, and the fragmentation of responsibilities.

The findings indicate that **the** internal bureaucratic structure within local governments was often a supportive factor. In Manado and Medan, BPKAD and Bappelitbangda had established clear internal divisions of labor. Teams were formed to handle specific stages of the planning and budgeting process, from Musrenbang to the formulation of RKPD, RPJMD, and RPJPD. This clear "Tupoksi" (tugas pokok dan fungsi) provided a structured environment into which SIPD could be integrated. Supervisors and department heads were appointed as responsible parties, ensuring a chain of accountability. As reported in Medan, "each field has its supervisor and is responsible for its respective field," indicating that the internal hierarchical control was functioning adequately.

The more significant challenge arose from **the** fragmentation and lack of integration across different OPDs and between central and local governments. SIPD's core design is one of integration, yet its implementation highlighted pre-existing bureaucratic silos. The frequent delays in data input from various SKPDs in Manado, for instance, were not just a technical issue but a coordination failure. Each SKPD operated on its own timeline and priorities, and SIPD, in its initial stages, lacked the coercive or incentivizing mechanisms to enforce discipline and synchronization across these autonomous units.

Furthermore, the misalignment between the new system and old SOPs created friction. While the Ministry of Home Affairs had SOPs for SIPD, local governments were often caught in a transitional phase. For example, in Pekanbaru, the SOP for budget planning was based on the new Permendagri No. 77 of 2020 and used SIPD, but the SOP for accounting and reporting was still based on the old Permendagri No. 13 of 2006, relying on SIPKD. This regulatory and procedural misalignment forced agencies like BPKAD to operate with a split workflow, manually transferring data from one system to another, which was inefficient and prone to error. The bureaucratic structure, therefore, acted as a double-edged sword: it provided internal order but also exposed the deep-seated fragmentation and procedural inertia that a new, integrated system like SIPD was designed to overcome.

Synthesis and Theoretical Discussion

The discussion above demonstrates that the challenges of SIPD implementation are not isolated technical glitches but are deeply intertwined socio-technical problems. Edward III's framework proves highly effective in diagnosing these issues systematically. The four variables do not operate in isolation but are dynamically interconnected.

For instance, poor communication (Variable 1) led to inadequate training, which directly resulted in a deficit of skilled human resources (Variable 2). This lack of competency, combined with unstable technology, fostered a negative disposition (Variable 3) among implementers. Their frustration and reluctance then reinforced their tendency to cling to old bureaucratic structures and procedures (Variable 4), such as using legacy systems, thereby undermining the integration goal of SIPD. This creates a vicious cycle that hinders implementation.

The findings align with and extend previous empirical work. Vitriana et al. (2022) and Nasution & Nurwani (2021) also identified resource and communication issues, but this analysis places them within a coherent theoretical narrative that explains their interdependency. The value of this framework is that it moves beyond listing problems and instead provides a diagnostic map for policymakers. It clearly shows that simply upgrading the software (a resource solution) will not be sufficient if not accompanied by improved, hands-on communication and training, efforts

to build a more positive disposition through a smoother rollout, and active work to align bureaucratic SOPs across the board.

In conclusion, the implementation of SIPD is a classic case of a sound policy being hampered by a deficient implementation strategy. The system's potential to revolutionize regional financial governance is undeniable, but its success is contingent upon a holistic approach that simultaneously addresses the gaps in communication, resources, disposition, and bureaucratic structure. Without a coordinated effort to strengthen these four pillars, SIPD risks becoming another underutilized technological artifact rather than the transformative tool for accountability and efficiency it was intended to be.

CONCLUSION

The implementation of the Local Government Information System (SIPD) represents a pivotal and ambitious endeavor by the Indonesian government to modernize public financial management and advance its e-governance agenda. This study has systematically evaluated this implementation process through the analytical lens of George C. Edward III's policy implementation theory, revealing a significant disparity between the system's potential and its practical effectiveness on the ground. The findings conclusively demonstrate that the challenges hindering SIPD's optimal performance are not merely technical but are deeply rooted in interrelated socio-technical and organizational factors.

The core conclusion is that the implementation of SIPD has been only partially effective. While the system has successfully introduced a more structured platform for budgetary planning and has improved data synchronization capabilities in some contexts, its overall impact has been substantially constrained by critical barriers. The analysis of the four key variables—communication, resources, disposition, and bureaucratic structure—paints a clear picture of these impediments. Inadequate and inconsistent communication from the central government resulted in poor socialization and a lack of practical, hands-on training for end-users. This directly contributed to a severe deficit in human resource competency, which emerged as the most significant bottleneck. Furthermore, persistent technical issues, including system instability and inadequate infrastructure, eroded user confidence and disrupted essential financial workflows. These resource shortcomings fostered a disposition of reluctant acceptance and frustration among implementers, who often resorted to using legacy systems as a workaround, thereby perpetuating fragmented processes. Finally, the existing bureaucratic structure, while providing internal order, also exposed fragmentation across different government units and a misalignment between new digital procedures and old Standard Operating Procedures (SOPs).

Therefore, it is evident that a singular focus on improving the technological application is insufficient. The success of SIPD is fundamentally contingent upon a holistic and simultaneous strengthening of all elements within the implementation framework. To unlock the system's full potential as a catalyst for transparent, efficient, and accountable regional financial governance, a multi-pronged strategy is essential. This strategy must prioritize continuous and comprehensive capacity-building programs for human resources, ensure robust and reliable technological infrastructure, foster clearer and more consistent communication channels between central and local governments, and actively work towards revising and aligning bureaucratic SOPs to

support a fully integrated digital workflow. Only through such a coordinated effort can the transformative vision behind SIPD be fully realized.

REFERENCES

- Bustanuddin, B., Yamin, A., & Zulkieflimansyah, Z. (2023). Pengaruh Penerapan Sistem Informasi Pemerintahan Daerah (SIPD) terhadap Fleksibilitas Pola Pengelolaan Keuangan pada Badan Layanan Umum Daerah (PPK-BLUD) di RSUD Asy-Syifa' Sumbawa Barat. *JIIP-Jurnal Ilmiah Ilmu Pendidikan*, 6(10), 8405-8410.
- Da Silva, J. (2023). *Pengaruh Penerapan Sistem Informasi Pemerintahan Daerah (SIPD) dan Kualitas Laporan Keuangan Pemerintah Daerah (LKPD) terhadap perolehan opini audit BPK tahun 2022 di Kabupaten Sikka Provinsi Nusa Tenggara Timur* (Doctoral dissertation, IPDN).
- Fitriasari, D. (2024). Pengaruh Penerapan Aplikasi Sistem Informasi Pemerintah Daerah (Sipd) Dan Kompetensi Sumber Daya Manusia Terhadap Kualitas Laporan Keuangan Pemerintah Daerah (Studi Pada Satuan Kerja Perangkat Daerah Kota Bandung). *Jurnal Bina Akuntansi*, 11(2), 34-54.
- Naida, N. (2024). Optimalisasi SIPD dan SPIP dalam Meningkatkan Kualitas Laporan Keuangan: Pentingnya Kompetensi SDM. *Solusi*, 22(4), 465-479.
- Prameswari, N. (2022). *Pengaruh Penerapan Sistem Informasi Pemerintahan Daerah (Sipd) Dan Kualitas Laporan Keuangan Pemerintah Daerah (Lkpd) Terhadap Perolehan Opini Audit Bpk Tahun 2021 Di Kabupaten Purbalingga* (Doctoral dissertation, INSTITUT PEMERINTAHAN DALAM NEGERI).
- Paat, F. F., & Saleh, S. A. (2023). Pengaruh Penerapan Sistem Informasi Pemerintahan Daerah (SIPD) Terhadap Kualitas Laporan Keuangan Pada Pemerintah Kota Cimahi. *Indonesian Accounting Research Journal*, 4(1), 1-8.
- Pratommi, M. W., & Muhsyaf, S. A. (2023). Pengaruh sistem informasi pengelolaan keuangan daerah terhadap efektivitas pengelolaan keuangan pemerintah daerah. *Jurnal Riset Mahasiswa Akuntansi*, 3(4), 99-109.
- Susanti, R. I., Barokah, R. A., & Suryaman, W. (2023). Pengaruh Penerapan SIPD terhadap Kemudahan dalam Penyusunan Laporan Keuangan SKPD Pemerintah Kota Cimahi. *PRAJA: Jurnal Ilmiah Pemerintahan*, 11(3), 163-176.
- Siregar, Z. N., Azlina, N., & Rofika, R. (2023). Pengaruh komunikasi, teknologi informasi, dan gaya kepemimpinan terhadap kesiapan pemerintah daerah dalam pelaksanaan SIPD. *Kompartemen: Jurnal Ilmiah Akuntansi*, 21(2), 336-349.
- Yulianda, D., Lubis, N. K., & Azhar, I. (2022). Pengaruh Kompetensi Pengguna, Teknologi Informasi Dan Implementasi SIPD Terhadap Kualitas Laporan Keuangan Pemerintah Daerah Kota Langsa. *Ekonomi Bisnis Manajemen Dan Akuntansi (EBMA)*, 3(2), 794-804