

# Implementation of SIPD in Regional Financial Management: Evidence from Murung Raya Regency

Implementation of  
SIPD on Financial  
Management

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## ABSTRACT

This study aims to analyze the application of the regional government information system in enhancing the effectiveness and efficiency of financial management and administration. The regional government information system is a national digital system designed to integrate the entire regional financial cycle from planning, budgeting, execution, and reporting to evaluation. Using a mixed methods approach, this research combines quantitative analysis of regional budget, budget realization reports, and regional government information system metadata with qualitative analysis through interviews, observations, and questionnaires based on the DeLone & McLean model. The findings indicate that regional government information system implementation significantly contributes to improving expenditure realization accuracy, consistency between planning and budgeting documents, and reporting efficiency. The average user perception score for system quality reached 4.2, with performance impact rated very good (4.4). However, technical challenges such as server instability and limited digital human resources remain barriers to optimal implementation. This research reinforces the relevance of Musgrave's theory on fiscal allocation efficiency and the DeLone & McLean model in evaluating public information systems.

**Keywords:** Effectiveness, Efficiency, Local Government, Regional Financial Management, Regional Government Information System.

## ABSTRAK

Penelitian ini bertujuan untuk menganalisis penerapan sistem informasi pemerintah daerah dalam meningkatkan efektivitas dan efisiensi pengelolaan serta administrasi keuangan. Sistem informasi pemerintah daerah merupakan sistem digital nasional yang dirancang untuk mengintegrasikan seluruh siklus keuangan daerah mulai dari perencanaan, penganggaran, pelaksanaan, pelaporan hingga evaluasi. Dengan menggunakan pendekatan mixed methods, penelitian ini menggabungkan analisis kuantitatif terhadap data APBD, laporan realisasi anggaran dan metadata sistem informasi pemerintah daerah dengan analisis kualitatif melalui wawancara, observasi, serta kuesioner berbasis model DeLone & McLean. Hasil penelitian menunjukkan bahwa penerapan sistem informasi pemerintah daerah secara signifikan berkontribusi pada peningkatan akurasi realisasi belanja, konsistensi antara dokumen perencanaan dan penganggaran, serta efisiensi pelaporan. Rata-rata skor persepsi pengguna terhadap kualitas sistem mencapai 4.2, dengan dampak kinerja dinilai sangat baik (4.4). Namun demikian, tantangan teknis seperti ketidakstabilan server dan keterbatasan sumber daya manusia digital masih menjadi hambatan dalam optimalisasi implementasi sistem informasi pemerintah daerah. Penelitian ini

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menegaskan relevansi teori Musgrave mengenai efisiensi alokasi fiskal dan model DeLone & McLean dalam evaluasi sistem informasi sektor publik.

**Kata kunci:** Efektivitas, Efisiensi, Pemerintah Daerah, Manajemen Keuangan Daerah, Sistem Informasi Pemerintah Daerah.

## INTRODUCTION

Regional financial management and administration are crucial elements in realizing transparent, accountable, and efficient governance (Wardani & Hasibuan, 2024). In practice, many local governments in Indonesia still face serious challenges, such as delays in financial reporting, mismatches between planning and budgeting, and weak integration between information systems (Gamayuni, 2020; Septiani & Isnawaty, 2024). Data fragmentation and protracted manual processes often lead to fiscal inefficiency and poor decision-making quality (Rahmadany, 2023).

In response to these challenges, the Ministry of Home Affairs of the Republic of Indonesia developed the Regional Government Information System (*Sistem Informasi Pemerintah Daerah/SIPD*), an integrated digital platform covering the entire regional financial management cycle from planning and budgeting to implementation and reporting (Tanan et al., 2024). SIPD is expected to be a strategic solution to strengthen synergy between regional government agencies, improve data accuracy, and accelerate national financial administration processes (Salain & Wedena, 2023; Teken & Romarina, 2024). However, despite widespread implementation of SIPD, its effectiveness in improving the quality of regional financial management has not received much academic study. There remains a gap between the system's potential and its actual benefits, particularly regarding human resource readiness, digital infrastructure, and institutional adaptation.

In addition, SIPD has become a mandatory platform for all regional governments through regulations issued by the Ministry of Home Affairs in 2021, making its successful implementation a national priority in realizing digital governance and fiscal reform (Nangoy et al., 2025). Audit reports from the Audit Board of Indonesia (*Badan Pengawas Keuangan/BPK*) and national monitoring by Kemendagri indicate that several regions continue to experience technical downtime, incomplete data migration, and disparities in user capability, suggesting that the benefits of SIPD are not yet evenly distributed (Septiani & Isnawaty, 2024). However, empirical evaluation of its real impacts remains limited, with most previous studies focusing on conceptual analyses or case discussions without measuring quantifiable administrative improvements. The selection of Murung Raya Regency as the research site strengthens the relevance of this study because it represents regions with complex geographic characteristics and infrastructure variability, providing an opportunity to examine SIPD performance in a realistic and challenging implementation environment.

Musgrave (1959) emphasized that a public financial system must be able to carry out its allocation, distribution, and stabilization functions efficiently. In the context of information systems, the DeLone and McLean (2003) model states that the success of a system is determined by the quality of information, systems, services, and their impact on organizational performance. Robinson and Brumby (2005) shows that digitalization of public budgets can improve efficiency and accountability, but only if supported by institutional reforms and technical capacity.

The identified gap is the lack of empirical studies that directly measure the contribution of the regional government information system to increasing the effectiveness and efficiency of regional financial management, especially in the context of Indonesia, which has diverse capacities between regions. The problem formulation in this study is: How does the application of SIPD contribute to increasing the effectiveness of regional financial management and administration in Murung Raya Regency? What are the supporting and inhibiting factors for implementation of SIPD at the regional level? The

aims of this study are to analyze the impact of the implementation of the regional government information system on the quality of regional financial management, identify challenges, strategies, and recommendations for optimizing SIPD within an institutional and technical context. This research offers a novel empirical evaluation of SIPD, a national system that has not been widely studied in the academic literature. Its main contributions are: providing scientific evidence on the effectiveness of SIPD in improving regional fiscal governance; developing an evaluation framework based on information systems models and public finance theory; and providing relevant policy recommendations for central and regional governments in strengthening the digitalization of public finance.

## **LITERATURE REVIEW**

### **Regional Government Information System**

Information systems such as SIPD serve as instruments for realizing these principles through the digitization of planning, budgeting, implementation, and reporting processes (Pinontoan et al., 2025). The success of regional government information system implementation can be analyzed using an information systems model. DeLone and McLean (2003) developed an information systems evaluation model encompassing six dimensions: system quality, information quality, service quality, usability, user satisfaction, and net benefits. This model is relevant for assessing how regional government information system impacts regional financial management performance. In his study of e-Government, Heeks (2006) stated that digital transformation in government depends not only on technology but also on organizational readiness, bureaucratic culture, and human resource capacity.

SIPD, as a national system, must be implemented with an adaptive approach to local conditions. SIPD supports this by providing a real-time reporting platform, integration between work units, and public access to budget data. SIPD is designed to integrate the Regional Medium-Term Development Plan (*Rencana Pembangunan Jangka Menengah Daerah/RPJMD*), Regional Work Unit Strategic Plan (*Rencana Strategis Satuan Kerja Perangkat Daerah/Renstra SKPD*), and Work Plan and Budget (*Rencana Kerja dan Anggaran/RKA*) into one system, thereby supporting performance-based budgeting. SIPD, as a digital system, enables regional government organizations to adapt to demands for transparency and efficiency through process automation and integration. SIPD provides financial performance indicators and output-based reporting that support internal control. In Indonesia, SIPD replaced the previous systems with a cloud-based approach and national integration, making it a strategic innovation in regional financial reform. Strengthening regional financial information systems as key to improving the quality of public spending (World Bank Group, 2020). Regional government information system addresses this recommendation by providing a platform that supports data-driven planning and standardized reporting.

### **Effectiveness and Efficiency of Regional Financial Management**

Regional financial management constitutes a critical component of public finance, with the primary objective of ensuring the efficient, equitable, and sustainable allocation of resources to meet societal needs. Musgrave (1959), in his theory of public finance, identifies three core functions of public finance, allocation, distribution, and stabilization, each of which plays a distinct role in achieving fiscal objectives. In the context of regional governance, the allocation function assumes particular importance, as it directly influences the effectiveness of public expenditure and the overall efficiency of budget utilization. To support these goals, regional financial management must be guided by fundamental principles of good governance, namely transparency, accountability, efficiency, and effectiveness (Mardiasmo, 2009; Masdar et al., 2021; Bakhtiar, 2021). These principles not only enhance public trust but also serve as benchmarks for evaluating the performance of regional fiscal systems.

From an organizational perspective, the effectiveness and efficiency of regional financial management can be further understood through established theories of organizational performance. Steers (1977) argues that organizational effectiveness is determined by three interrelated dimensions: the degree of goal attainment, the capacity to adapt to external environmental changes, and the level of internal operational efficiency. In the realm of public financial administration, these dimensions translate into the ability of regional governments to align budgetary processes with development priorities, respond promptly to fiscal challenges, and optimize resource utilization. Complementing this view, Anthony and Govindarajan (2007) emphasize that the effectiveness of a management control system hinges on the organization's capability to systematically measure, monitor, and evaluate performance against predefined objectives. Recent studies have reinforced this perspective, highlighting the critical role of robust control mechanisms in improving accountability and decision-making quality in regional financial management (Saputra et al., 2024). These theoretical foundations underscore that the success of regional financial systems depends not only on technical tools and procedures but also on strong organizational capacity, adaptive governance structures, and continuous performance evaluation.

### **International Practices, Relevance of the Regional Government Information System**

International experiences in public financial management have consistently demonstrated that fiscal accountability and efficient resource use are significantly enhanced through the adoption of performance-based budgeting systems coupled with high levels of information transparency. Schick (1998) argues that such systems enable governments to shift from traditional input-oriented budgeting toward outcome-focused approaches, thereby fostering greater accountability to citizens and oversight institutions. Similarly, Allen and Tommasi (2001), in their comprehensive framework for managing public expenditure, emphasize that an effective financial information system must establish clear linkages between budget inputs, service delivery processes, and measurable development outputs and outcomes. Empirical evidence from various countries further corroborates these principles: the implementation of technology-driven budgeting and financial management systems has been shown to improve fiscal efficiency, reduce leakages, and reinforce public accountability by providing real-time data access and standardized reporting mechanisms (Robinson & Brumby, 2005; Chen et al., 2022; Majer & Makuac, 2023). These global practices highlight the strategic importance of digital financial platforms in modernizing public finance administration and aligning fiscal policy with development priorities.

In the Indonesian context, SIPD draws directly from these established international principles and represents a localized application of advanced public financial management concepts. By integrating planning, budgeting, execution, reporting, and evaluation processes into a unified digital platform, SIPD aligns closely with the theoretical foundations of performance-based budgeting, transparency, and outcome-oriented financial governance articulated in the international literature. In doing so, the research not only contributes to the growing body of knowledge on digital transformation in public finance but also advances the development of evaluation frameworks for performance-based financial information systems, while offering practical insights into institutional adaptation strategies required for successful implementation in diverse regional settings (Nur et al., 2023).

### **RESEARCH METHODS**

This research uses a mixed methods approach. The method is a combination of quantitative and qualitative descriptive approaches (Taguchi, 2018). This approach was chosen to obtain a comprehensive picture of SIPD implementation, both in terms of financial data and the perceptions and experiences of system users. A quantitative approach was used to analyze budget realization data, reporting speed, and consistency of financial documents before and after the implementation of SIPD. A qualitative

approach was used to explore perceptions, challenges, and strategies for implementing SIPD through interviews and observations. The research was conducted in the local government of Murung Raya Regency, which represents a diverse geographic region with high complexity and dynamic institutional capacity. This study's subjects included regional financial management officials, SIPD operators and technical staff, internal and external auditors, and documentation of the 2020–2024 Regional Budget and Budget Realization Report (*Laporan Realisasi Anggaran/LRA*).

This study employed both primary and secondary data sources. Primary data were obtained through semi-structured interviews, questionnaires, and direct observation of SIPD usage across regional government offices. Secondary data consisted of APBD documents, Budget Realization Reports financial performance reports, and SIPD data provided by the Ministry of Home Affairs. Data were collected using several techniques, including in-depth interviews with 15 key informants in each OPD, closed and open questionnaires based on the DeLone and McLean model to measure system quality and user satisfaction, documentation review of financial reports, and direct observation of the input, validation, and reporting processes within SIPD.

The analysis used a mixed-methods approach that combined quantitative and qualitative techniques. Quantitative analysis included descriptive statistics to evaluate SIPD effectiveness in improving reporting speed, data accuracy, and document consistency, paired t-tests to compare financial performance indicators before and after SIPD implementation, and Likert scoring to measure user perceptions of system and information quality. Qualitative analysis was conducted through thematic examination of interview results to identify perceptions, implementation challenges, and strategic responses, supported by data triangulation between interviews, observations, and document studies to enhance validity.

To support the analysis, the study applied the DeLone and McLean (2003) information system success model to assess six dimensions of SIPD performance, along with Musgrave's fiscal theory (1959) to evaluate SIPD's role in allocation and efficiency functions. Data processing utilized SPSS for statistical analysis, NVivo for qualitative coding, and Microsoft Excel for financial and budget data management.

## RESULTS

### Implementation of SIPD on Regional Financial Management

SIPD is a national digital-based system developed by the Ministry of Home Affairs of the Republic of Indonesia to support integrated regional governance. SIPD serves as the primary platform for regional financial planning, budgeting, implementation, reporting, and evaluation, as well as asset management and institutional profiles. The SIPD is designed to enhance the efficiency and effectiveness of regional financial management by providing real-time data to support decision-making, strengthening transparency and accountability, and integrating information systems across government units (Pesireron & Kriekhoff, 2025). Its main components include a Planning and Budgeting module that manages documents such as the Regional Medium-Term Development Plan (*Rencana Pembangunan Jangka Menengah Daerah/RPJMD*), Strategic Plans of Local Government Work Units, Work Plan and Budget (*Rencana Kerja dan Anggaran/RKA*), and Budget Implementation Document (*Dokumen Pelaksanaan Anggaran/DPA*), enabling vertical and horizontal alignment between planning and budgeting processes. The public financial governance module covers budget execution, Fund Disbursement Order (*Surat Perintah Pencairan Dana/SP2D*) processing, and expenditure realization, supporting reporting based on outputs and outcomes. Additionally, the Regional Property Finance (*Barang Milik Daerah/BMD*) module facilitates digital asset management and provides real-time information on asset values, locations, and conditions.

The SIPD operates through an integrated national cloud platform managed by the Ministry of Home Affairs, enabling a bidirectional flow of information. Local governments enter and retrieve data through the SIPD dashboard, while the central

government performs validation, monitoring, and technical support. The data processed through SIPD is then utilized for the preparation of financial reports, performance evaluations, and both internal and external audits. SIPD is a relevant locus for this research because its implementation has been mandatory for all local governments since 2021, providing structured quantitative and qualitative data suitable for systematic analysis. As a representation of digital transformation in public financial management, SIPD serves as a key instrument for evaluating regional fiscal performance and institutional effectiveness. Figure 1 shows the focus of the regional government information system, which consists of planning and budgeting, public financial management, and regional assets finance.

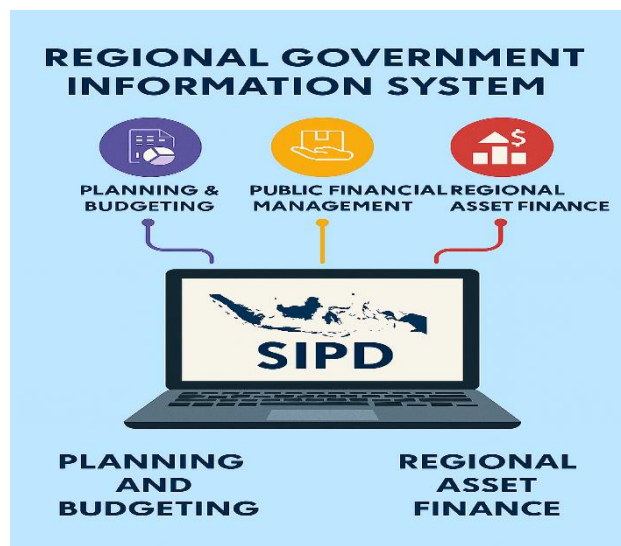


Figure 1. Regional Government Information System (SIPD)

Primary data was obtained through the results of semi-structured interviews with 15 key informants from five Regional Government Work Units (*Organisasi Perangkat Daerah/OPD*) consisting of Regional Financial and Asset Management Agency (*Badan Pengelola Keuangan dan Aset Daerah/BPKAD*) officials, SIPD operators, internal auditors, and planning staff; a Likert scale-based questionnaire (1–5) to measure perceptions of system quality, ease of use, and the impact of SIPD on work efficiency; as well as direct observation of the RKA input process, expenditure validation, and LRA reporting through the SIPD dashboard. The findings showed that the majority of informants acknowledged that SIPD accelerated the reporting process and increased data accuracy, but still faced technical obstacles such as server disruptions and limited digital human resources. Table 1 shows the primary data recapitulation.

Table 1. Primary Data Recapitulation

Data source	Observed Indicators	Key Findings
Interview	Perception of SIPD effectiveness	87% of informants stated that SIPD increased the accuracy and speed of reporting.
	Technical and HR constraints	73% cited server outages and lack of training as major barriers.
Questionnaire	Quality of the SIPD system	Average score 4.2 out of 5 (good category)
	SIPD user satisfaction	Average score 4.0 out of 5 (quite satisfied category)
Observation	RKA input and validation process	Monitored faster and documented digitally
	LRA reporting via the SIPD dashboard	Budget realization can be monitored daily and across OPDs

Secondary data were collected from official documents of local governments and the Ministry of Home Affairs, including: 2020–2024 Regional Budget and Revised Regional Budget Documents, Quarterly and Annual Budget Realization Reports, Regional Financial Performance Reports and Metadata and Manual for Using SIPD from the Directorate General of Regional Financial Development.

The data show that since the implementation of SIPD, consistency between planning and budgeting documents has increased, and the time required to prepare financial reports has decreased by an average of 30–40%. Table 2 shows the secondary data recapitulations.

Table 2. Secondary Data Recapitulation

Document Type	Year	Key Findings
Regional Budget & Revised Regional Budget	2020–2024	Consistency between RKA and DPA has increased since SIPD was implemented
Realization Report	2020–2024	Report preparation time is reduced by $\pm 35\%$ compared to manual systems
Performance Report	2020–2024	Financial performance indicators are more integrated with SIPD
SIPD Metadata	2023	Demonstrates realization tracking, automatic validation, and RPJMD integration features.

The document review presented in Table 2 shows notable improvements in regional financial management following the implementation of SIPD. Regional Budget and Revised Regional Budget documents from 2020–2024 indicate increased consistency between RKA and DPA, reflecting stronger alignment in planning and budgeting. Realization reports for the same period show that preparation time has decreased by approximately 35% compared to manual processes, demonstrating enhanced efficiency. Performance reports from 2020–2024 reveal better integration of financial performance indicators within SIPD. Additionally, SIPD metadata from 2023 highlights key system capabilities, including realization tracking, automatic validation, and integration with RPJMD.

Descriptive statistics are used to describe trends and distributions of quantitative data from financial documents and SIPD. Table 3 shows the SIPD quantitative data. The financial performance indicators showed by LRA preparation time, RKA-DPA consistency, and accuracy from spending realization.

Table 3. SIPD Quantitative Data

Financial Performance Indicators	Before SIPD (2019)	After SIPD (2024)	Change (%)
LRA preparation time	45 days	28 days	-37.8%
RKA–DPA Consistency	72%	94%	+22%
Accuracy of spending realization	85%	96%	+11%

According to Table 3, the data shows that after the implementation of SIPD, the time required to prepare the Budget Realization Report decreased from 45 days to 28 days (a 37.8% decrease). Consistency between the RKA and DPA increased from 72% to 94%, and the accuracy of expenditure realization increased from 85% to 96%. It concludes that SIPD significantly contributes to increased reporting efficiency and budget document consistency. The accuracy of spending realization increases due to automated system validation.

The paired t-test, a difference analysis was performed to examine whether there were statistically significant changes in regional financial performance before and after the implementation of SIPD. The test evaluated three key performance variables, namely report preparation time, realization accuracy, and document consistency. These indicators were selected to measure the extent to which SIPD contributed to improvements in the effectiveness and reliability of financial management processes. The results of the paired t-test are presented in Table 4.

**Table 4.** Paired T-test

Test	Value
T-statistic	4.21
P-Value	0.003 (p < 0.05)

The results of the difference test show a t-statistic = 4.21 and p-value = 0.003 (p < 0.05), which means there is a significant difference between financial performance before and after SIPD. There is a statistically significant difference between financial performance before and after SIPD. This indicates that SIPD has a positive impact on the efficiency and effectiveness of regional financial administration.

A Likert scoring approach was applied to analyze user perceptions collected through the SIPD user perception questionnaire. The instrument utilized a 1–5 scale to assess responses related to system quality and user satisfaction, where higher scores indicate more positive evaluations. The results of the Likert scoring, which summarize user perceptions of SIPD performance, are presented in Table 5.

**Table 5.** Data SIPD User Perception Questionnaire

SIPD Evaluation Dimensions	Average Score	Category
System quality	4.2	Good
Ease of use	4.0	Pretty good
Reporting speed	4.3	Good
User satisfaction	4.0	Quite satisfied
Benefits to performance	4.4	Very good

Table 5 summarizes the results of the SIPD user perception questionnaire, indicating generally positive assessments across all evaluation dimensions. System quality received an average score of 4.2, categorized as good, while ease of use and user satisfaction scored 4.0, reflecting perceptions that the system is reasonably easy to operate and provides a satisfactory user experience. Reporting speed was rated 4.3, indicating good performance in supporting faster financial reporting. The highest rating was given to the perceived benefits to performance, with a score of 4.4, categorized as very good, demonstrating that users acknowledge SIPD’s strong contribution to improving work effectiveness and organizational performance. It can be concluded that SIPD users rate this system as high quality and useful, although there is still room for improvement in terms of technical ease and service support (Khairunnisa & Setyowati, 2024).

The thematic analysis of the semi-structured interviews with 15 key informants. The interview results revealed four key themes related to SIPD implementation, namely the effectiveness of SIPD in supporting reporting processes, technical challenges associated with server and network reliability, the need for improved human resource capacity and training, and the role of SIPD in enhancing integration across OPDs. These themes emerged consistently across participants and provide insight into both the strengths and constraints of system implementation in regional financial management.

### **Challenges, Strategies, and Recommendations for Optimizing SIPD**

The first theme highlighted the perceived effectiveness of SIPD in improving reporting processes. One BPKAD informant stated that SIPD really helps compile reports more quickly and accurately, underscoring the system’s contribution to enhancing efficiency. Additionally, the system was seen as strengthening collaboration across agencies, as expressed by a Regional Development Planning Agency (*Badan Perencanaan Pembangunan Daerah/Bappeda*) planner who noted that SIPD makes inter-agency programs more synchronized. These statements reflect a strong perception that SIPD has positively influenced reporting performance and institutional integration.

At the same time, informants identified several challenges that constrain optimal implementation. Technical issues were particularly emphasized, with an SIPD operator pointing out that the server often goes down when inputting RKA, especially at the beginning of the budget year, indicating system instability during peak workloads. Human

resource readiness also emerged as a key concern, illustrated by an internal auditor who stated that there are still many staff who are not yet familiar with digital systems. Collectively, these representative statements demonstrate that although SIPD is viewed as effective, its success is closely dependent on technical reliability and sufficient user capability.

Triangulation was applied to strengthen the validity of the research findings by comparing information obtained from interviews, direct observations, and secondary financial documents. This approach made it possible to cross-check the consistency of evidence and identify the convergence between qualitative and quantitative data related to SIPD implementation. Table 6 presents the comparative results of the triangulated data.

**Table 6.** Comparative Data

<b>Data source</b>	<b>Consistent Findings</b>	<b>Validation of Findings</b>
Interview	SIPD speeds up reporting	Confirmed by LRA data (37.8% time reduction)
Observation	Faster and documented shopping validation	In accordance with SIPD metadata and BPK reports
LRA Document	Realization accuracy increases	According to user perception (score 4.4)

The triangulation results presented in the table indicate a strong alignment across the three data sources. Interview data confirmed that SIPD accelerates reporting processes, a finding supported quantitatively by a 37.8% reduction in preparation time recorded in the LRA. Observational data also demonstrated faster and well-documented expenditure validation, which is consistent with SIPD metadata and audit evidence from BPK. Meanwhile, LRA documents revealed increased accuracy in realization reporting, further reinforced by user perception survey results, which showed a score of 4.4 for perceived performance benefits. Collectively, these consistent findings validate each other and emphasize that SIPD contributes to improving reporting speed, accuracy, and transparency, thereby strengthening the credibility of the research results.

## **DISCUSSION**

The implementation of the SIPD has been proven to have a positive impact on regional financial management. Reduced reporting times, increased document consistency, and accuracy of spending realization demonstrate that SIPD supports administrative efficiency and effectiveness. However, technical challenges such as server outages and limited digital human resources remain major obstacles (Mendriadi et al., 2025). The DeLone and McLean model shows that users rate the quality of the SIPD system and information well, but service and technical support need improvement. Musgrave's theory of fiscal allocation efficiency is also reflected in the increase in more targeted and documented spending.

The results show that the time to prepare the LRA was reduced from 45 days to 28 days after the implementation of SIPD (a 37.8% decrease). The reduction in reporting time indicates that SIPD has successfully automated previously manual and fragmented financial administration processes. This aligns with the DeLone and McLean (2003) model, where system quality and ease of use directly contribute to operational efficiency. SIPD enables real-time input of realization data, automatic validation, and integration between work units, thereby accelerating the reporting cycle. From the perspective of Allen's Managing Public Expenditure theory and Tommasi (2001), reporting time efficiency is an indicator of the success of the financial information system in supporting timely fiscal decision-making.

The consistency between RKA and DPA increased from 72% to 94%. Document consistency demonstrates SIPD's ability to integrate planning and budgeting processes within a single platform. Previously, discrepancies between the RKA and DPA frequently occurred due to format differences, input delays, and manual revisions. SIPD

systematically synchronizes the RPJMD, Renstra SKPD, and RKA, thereby reducing the risk of inconsistencies. According to Musgrave (1959), consistent and targeted budget allocation is a key requirement for fiscal efficiency. SIPD supports the allocation function by providing a uniform and documented data structure.

The Accuracy of spending realization increased from 85% to 96%. Improved spending accuracy demonstrates that SIPD strengthens internal control mechanisms and transaction validation. This system enables daily budget realization tracking, account code locking, and automatic notification of deviations (Faisal, 2025). This minimizes the opportunity for input errors and data manipulation (Meliana & Ansar, 2021). In the context of fiscal accountability spending accuracy is a crucial indicator in assessing the integrity of the regional financial system (Schick, 1998; Loozekot & Dijkstra, 2017). SIPD supports the principles of transparency and auditability through traceable digital footprints.

User perceptions of SIPD system quality show generally positive results, with an average score of 4.2 for system quality, 4.0 for ease of use, and 4.4 for performance benefits. These findings indicate that SIPD is well-received and viewed as a reliable platform that supports efficient work processes. Users particularly appreciate its reliability, fast access, and intuitive navigation features, which contribute to improved reporting performance (Nasrudin & Widagdo, 2020). However, despite the positive assessment, challenges remain related to technical stability and user competence, since many civil servants are still adapting to digital workflows. In line with the DeLone and McLean Information System Success Model, user satisfaction and performance benefits are influenced by the quality of systems and information. SIPD already fulfills most of these dimensions, yet the results suggest that strengthening technical support and providing continuous training are necessary to maximize system effectiveness.

One of the key supporting factors in the regional implementation of SIPD is demonstrated through data triangulation, which reveals strong consistency between user perceptions, field observations, and official financial documents. Data triangulation indicates that the research findings have high validity. User perceptions of the effectiveness of SIPD align with quantitative data and official documents (Bernika et al., 2023). Direct observation of the input and reporting processes strengthens the evidence that SIPD improves efficiency and accuracy (Kofahe et al., 2019; Gohary, 2019). This supports a mixed methods approach in public policy research, where the integration of primary and secondary data provides a more complete and in-depth picture.

A major inhibiting factor in the implementation of SIPD at the regional level relates to human resource capacity and system infrastructure (Andhayani & Eltivia, 2022). The findings show that 73% of informants identified frequent server disruptions and insufficient training as primary obstacles. Technical constraints such as server outages and network limitations, particularly in 3T (remote, frontier, and outermost) areas, hamper SIPD optimization. Furthermore, resistance to change from civil servants accustomed to manual systems presents a challenge. The success of e-Government depends not only on technology but also on organizational readiness and bureaucratic culture (Manoe et al., 2023). SIPD needs to be balanced with change management strategies, intensive training, and strengthening of digital infrastructure (Kerwayu & Patty, 2025).

## **CONCLUSION**

Based on the analysis of primary and secondary data through descriptive statistics, difference testing, Likert scoring, thematic analysis, and data triangulation, the implementation of SIPD has demonstrated a substantial contribution to improving the effectiveness and efficiency of regional financial management in Indonesia. The system has accelerated financial reporting, enhanced the accuracy of budget realization, and strengthened the consistency of planning and budgeting documents, evidenced by a 37.8% reduction in LRA preparation time and an increase in RKA–DPA consistency from 72% to 94%. User perception results also indicate strong acceptance, with average scores above four for system quality, ease of use, and performance benefits. Despite these positive

outcomes, SIPD implementation continues to face significant challenges related to limited digital skills, unstable system infrastructure, and bureaucratic resistance to technological change, indicating that long-term success requires strengthened institutional capacity and ongoing technical support. This study strengthens the relevance of the DeLone and McLean model in evaluating government information systems and confirms the fiscal allocation function in Musgrave's theory as the foundation for efficient public budget management. SIPD has met most of the dimensions of information system success but still requires strengthening in terms of technical services and local adaptation.

The results of this study show that SIPD implementation has significantly improved the effectiveness and efficiency of regional financial management, particularly by accelerating reporting processes, increasing document consistency, and enhancing spending accuracy; however, technical constraints and limited digital human resources remain major challenges. These findings imply that strengthening ICT infrastructure, expanding user training, and improving technical support are critical to maximizing system performance. Nonetheless, the study has limitations, as it focuses on a single regional government (Murung Raya Regency), relies on a limited sample of interview informants, and does not analyze system performance logs directly, which may limit generalizability. Future research should expand to comparative studies across multiple regions, apply longitudinal analysis to assess long-term effects, examine cost-benefit implications, and explore change management and digital competency strategies to better support sustainable SIPD implementation and enhance public value outcomes.

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