

## Analysis Effectiveness Sipd In Regional Development

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### Abstract

*The Regional Government Information System (Sistem Informasi Pemerintahan Daerah – SIPD) serves as an integrated system that supports local governments in carrying out planning, budgeting, and reporting processes. Through the implementation of SIPD, regional government data become more integrated, enabling resource management to be conducted in a transparent and accountable manner in order to achieve more effective regional development. Based on Ministry of Home Affairs Regulation Number 77 of 2020 concerning the Technical Guidelines for Regional Financial Management, the management of regional finances is required to be carried out through information systems covering the stages of planning, budgeting, implementation, administration, reporting, and accountability. This study aims to analyze the extent to which SIPD is utilized and accepted by users, as well as to assess its effectiveness by examining in depth the value of its benefits for the central government in terms of data integration, for local governments in accelerating development processes, and for the public in enhancing transparency of public services. Using a descriptive qualitative method based on a review of relevant literature, this study applies the Technology Acceptance Model (TAM) as its analytical framework. The expected results are to describe the role of SIPD in accelerating regional development and optimizing data integration among the central government, local governments, and the community.*

**Keywords:** *Technology Acceptance Model (TAM); Regional Development Planning; RPJMD and RKPD; Public Transparency; Government Data Integration.*

### I. INTRODUCTION

Effective, transparent, and accountable local government governance constitutes a fundamental foundation for the management of regional development and public finances. The principle of effectiveness emphasizes the achievement of development objectives in accordance with established plans, while transparency and accountability require openness of information and responsibility in the use of public budgets (Mardiasmo, 2018; Dwiyanto, 2016). However, various studies indicate that challenges persist in local government governance, including inconsistencies between planning and budgeting documents, weak performance control, and low accountability in reporting practices (Halim & Kusufi, 2019). These conditions highlight the need to strengthen local government governance through more integrated and system-based mechanisms.

The expansion of development programs across various sectors is expected to serve as an effective medium for information dissemination and to encourage broader public participation through the utilization of digital technology in local government management, both in the present and in the future.

Currently, this process is supported by the implementation of the Regional Government Information System (Sistem Informasi Pemerintahan Daerah – SIPD), as regulated under Ministry of Home Affairs Regulation Number 77 of 2020 concerning the Technical Guidelines for Regional Financial Management. The budget functions not only as a planning instrument but also as a control mechanism. The Regional Revenue and Expenditure Budget (APBD) serves as the primary funding source used by governments to carry out governmental functions. Through expenditure account data contained in government budgets, it can be assessed whether the budget formulation effectively functions as a control tool over the implementation of governmental activities (Nasution et al., 2021). Through Regulation Number 77 of 2020, the government promotes the utilization of SIPD as an integrated system that supports regional development processes from planning and budgeting to reporting. SIPD is designed to connect development planning documents such as the Regional Medium-Term Development Plan (RPJMD) and the Regional Government Work Plan (RKPD) with budgeting processes through the Work Plan and Budget (RKA),

as well as with regional financial and performance reporting in a consistent manner (Ministry of Home Affairs, 2021). Nevertheless, previous studies reveal that the implementation of SIPD has not yet been fully optimized due to limitations in human resources, infrastructure readiness, and the level of understanding of regulations among government officials (Pratama & Rahman, 2022; Sari & Nugroho, 2021). Therefore, research on the role and effectiveness of SIPD in supporting local government governance in accordance with Regulation Number 77 of 2020 is essential to ensure the achievement of effective, transparent, and accountable regional development. Data fragmentation among Regional Apparatus Organizations (OPD) remains a significant issue in the management of regional development and public finances, despite the normative mandate of Regulation Number 77 of 2020 to ensure integration between planning, budgeting, and reporting processes. In practice, the linkage between the National Medium-Term Development Plan (RPJMN), which is translated into the Regional Medium-Term Development Plan (RPJMD), has not been fully integrated with annual work plans and the preparation of the Regional Apparatus Work Plan and Budget (RKA). This lack of synchronization results in inconsistencies between development policy directions and budget allocations, ultimately reducing the effectiveness of achieving regional development objectives (Dwiyanto, 2016; Mardiasmo, 2018). Such conditions indicate that regulatory implementation has not yet been sufficient to address data fragmentation and the weak integration of planning and budgeting at the local government level (Halim & Kusufi, 2019).

In addition to affecting the quality of planning and budgeting, weak integration as stipulated in Regulation Number 77 of 2020 also impacts reporting processes and the transparency of regional development outcomes to the public. Delays in the preparation of financial and performance reports, as well as limited access to public information, reflect the suboptimal application of accountability principles in local government governance. Previous studies emphasize that the utilization of integrated local government information systems—particularly SIPD—serves as a strategic instrument for effectively implementing the mandate of Regulation Number 77 of 2020, as it enables consistent, data-driven linkages among planning, budgeting, and reporting documents (Sari & Nugroho, 2021; Pratama & Rahman, 2022). Therefore, examining the role of SIPD in

strengthening the integration of RPJMN, RPJMD, and RKA is crucial to supporting the realization of effective, transparent, and accountable local government governance.

## II. RESEARCH METHODOLOGY

### A. Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is a theoretical framework used to explain and predict users' acceptance and use of technology. The model was developed by Fred D. Davis in 1989 and posits that technology acceptance is primarily influenced by two key factors: perceived usefulness and perceived ease of use (Rahmawati & Narsa, 2019). Perceived usefulness refers to users' perceptions of the extent to which a technology enhances their performance or productivity, while perceived ease of use reflects users' perceptions of how easy the technology is to understand and operate. These two factors influence users' attitudes toward using the technology (attitude toward using), which subsequently shape their behavioral intention to use the technology. This intention ultimately affects actual system use. Thus, TAM provides a conceptual understanding that technologies perceived as useful and easy to use are more likely to be accepted and utilized by users.

### B. Effectiveness of the Regional Government Information System

The effectiveness of the Regional Government Information System (Sistem Informasi Pemerintahan Daerah – SIPD) refers to the extent to which the system is able to support regional government processes of planning, budgeting, implementation, and reporting in an integrated, accurate, and timely manner. SIPD is considered effective when it enhances data management quality, accelerates decision-making processes, and promotes transparency and accountability in local government performance (Manoe et al., 2023). Furthermore, the effectiveness of SIPD is influenced by system usability, human resource readiness, availability of technological infrastructure, and policy support from leadership. Effective implementation of SIPD is expected to improve efficiency, coordination, and compliance with prevailing regulations in local government governance.

The effectiveness of SIPD in supporting regional development planning can also be examined through several interrelated dimensions. One key dimension is data and information integration, namely SIPD's ability to integrate planning, budgeting, and reporting data so that the translation of the Regional Medium-Term Development Plan (RPJMD) into the Regional Government Work Plan (RKPD) can be conducted consistently and without data duplication. This integration forms the foundation for systematic and coordinated regional development planning. Another important dimension

is planning consistency between RPJMD and RKPD. SIPD functions as a planning control tool that ensures development objectives, targets, performance indicators, programs, and activities in the RKPD remain aligned with the strategic directions and policy objectives outlined in the RPJMD. This consistency reflects SIPD's capacity to maintain continuity between medium-term and annual planning processes.

SIPD effectiveness is also reflected in the efficiency of the planning process. The utilization of SIPD is expected to simplify planning procedures, accelerate data processing, and reduce administrative errors. By improving planning efficiency, local governments can allocate time and resources more optimally toward the formulation of development policies. In addition, the quality of planning information represents a crucial dimension in assessing SIPD effectiveness. Information generated by SIPD must be accurate, relevant, and timely to serve as a reliable basis for decision-making in the preparation of RPJMD and RKPD. High-quality information enhances the precision of development targeting and supports data-driven planning. Finally, the dimensions of transparency and accountability reflect SIPD's capacity to facilitate accountable development planning. Through standardized and integrated documentation, SIPD enables RPJMD and RKPD planning processes to become more transparent, thereby strengthening accountability to both the central government and the public. Overall, these dimensions indicate that SIPD effectiveness is determined not only by technical system aspects but also by planning quality, user behavior, and local government governance.

### C. Regional Development Planning

In development planning theory, information is a key element throughout all planning stages (Kuncoro, 2018). Regional development planning is structured hierarchically and continuously, beginning with strategic medium-term planning and followed by operational annual planning. At the regional level, this process is embodied in the Regional Medium-Term Development Plan (RPJMD) and the Regional Government Work Plan (RKPD) (Hasan, 2018). The RPJMD is a five-year strategic planning document that outlines the vision and mission of the regional head, development goals and targets, strategies, policy directions, and development performance indicators. It serves as the primary guideline for all regional apparatus in implementing development throughout a government term. The preparation of the RPJMD requires baseline data on regional conditions, previous development achievements, and projections of regional fiscal capacity to ensure that development directions are realistic and measurable. The RPJMD is subsequently elaborated annually into the RKPD (Widiyanti, 2019). The RKPD functions as an annual planning document that outlines regional

development priorities, programs, activities, and funding frameworks for a fiscal year. In the planning process, the RKPD serves as a bridge between strategic planning (RPJMD) and regional budgeting, requiring all programs and activities to directly refer to RPJMD objectives and targets.

In practice, one of the main challenges in regional development planning is the lack of continuity between RPJMD and RKPD, particularly in terms of performance indicators, programs, and development priorities (Artiyana et al., 2022). Therefore, government information systems play a crucial role as instruments for planning integration and control. At the regional level, this role is fulfilled through SIPD. SIPD is designed as an integrated information system that supports all stages of local government management, particularly development planning and budgeting (Sudianing et al., 2019). Through SIPD, RPJMD data become the primary reference for RKPD preparation, ensuring a direct linkage between medium-term and annual planning. In the RPJMD-to-RKPD process, SIPD provides an RPJMD database as a reference for RKPD formulation, facilitates the translation of RPJMD objectives and targets into annual development priorities, maintains consistency of performance indicators, programs, and activities between RPJMD and RKPD, and integrates RKPD with regional budgeting documents to ensure that development plans are supported by clear budget allocations. Through these mechanisms, SIPD functions as a planning control tool that ensures RKPD remains aligned with RPJMD (Wijaya, 2025). The effectiveness of government information systems through SIPD is not only determined by system quality and regulatory frameworks but also by user acceptance, particularly among local government officials. This perspective is explained by TAM, which emphasizes that information system use is influenced by perceived usefulness and perceived ease of use.

Theoretically, SIPD holds significant importance as a primary enabler in achieving these objectives. From a development planning perspective, SIPD provides an integrated data foundation to support the preparation of regional planning documents. Planning documents such as RPJMD, RKPD, Regional Apparatus Work Plans (Renja OPD), General Budget Policies (KUA), and the Regional Revenue and Expenditure Budget (APBD) must be prepared systematically, integratively, and continuously to function effectively as guidelines for regional development implementation (Dwiprasojo, 2023). Integration among these documents is essential to ensure consistency between the regional head's vision and mission, development priorities, OPD programs and activities, and available budget allocations. In this context, the Regional Development Planning Agency (BAPPEDA) plays not only a coordinating role in the

preparation of RPJMD, RKPD, KUA, and APBD but also a strategic role as a controller and integrator of planning and budgeting documents into a unified development planning database. This database ensures alignment between planning, budgeting, implementation, monitoring, and evaluation processes while enhancing transparency, accountability, and decision-making effectiveness in achieving sustainable regional development goals. Moreover, SIPD enhances transparency and accountability in regional financial management by documenting all financial management processes within the system, thereby facilitating supervision, auditing, and performance evaluation. From a bureaucratic efficiency perspective, SIPD simplifies government workflows through process digitalization, accelerating development implementation and improving public service quality. Consequently, SIPD serves as a strategic instrument in supporting sustainable, community-oriented regional development.

The success of government information systems is determined not only by technological quality and regulatory support but also by user acceptance and behavior (Sudianing, 2019). In the context of RPJMD-to-RKPD planning, local government officials are more likely to optimally utilize SIPD when they perceive that the system facilitates RPJMD translation into RKPD, helps maintain planning and budgeting consistency, and is easy to use during planning document preparation. High user acceptance leads to sustained system use (actual system use), enabling RPJMD-to-RKPD planning processes to be conducted more effectively, systematically, and accurately (Bajo, 2025). Thus, SIPD functions not merely as a technical data management tool but also as an instrument that shapes the behavior of local government officials. User acceptance ultimately determines the extent to which SIPD effectively supports regional development planning.

Overall, government information systems can be understood as the foundation of modern governance. Through SIPD, government information systems integrate RPJMD and RKPD into a unified, data-driven, transparent, and accountable development planning framework. The effectiveness of this system depends heavily on system quality and the acceptance of local government officials. Based on a review of literature on government information systems, regional development planning, and SIPD implementation, SIPD is shown to play a strategic role in enhancing regional development effectiveness through the integration of planning, budgeting, and reporting processes (Maulani, 2024). Studies consistently demonstrate that integrated information systems improve development planning quality by providing accurate, consistent, and accountable data. SIPD contributes significantly to maintaining continuity between medium-term and annual planning documents, particularly RPJMD and RKPD,

by enabling systematic translation of RPJMD objectives into RKPD programs and activities. This reduces inconsistencies between medium-term development policies and annual priorities, a longstanding challenge in regional planning. Literature also indicates that SIPD enhances the efficiency of regional development planning by accelerating RPJMD and RKPD preparation, reducing reliance on manual processes, and minimizing administrative errors. Consequently, local governments can allocate time and resources more effectively toward strategic, needs-based development policy formulation. In terms of planning quality, SIPD improves access to development performance data, indicators, and financial information, supporting more objective, data-driven decision-making aligned with evidence-based planning principles. However, the literature emphasizes that SIPD effectiveness is not solely determined by system quality and regulatory frameworks but is strongly influenced by user behavior as described in TAM. Positive perceptions of system usefulness and ease of use encourage optimal system utilization, while limited technological skills and inadequate understanding of SIPD benefits can hinder effective implementation. Beyond user factors, organizational and leadership support are also critical to successful SIPD implementation. Commitment from regional leaders, inter-agency coordination, and continuous evaluation mechanisms are key determinants of SIPD's effectiveness in supporting regional development planning. Without strong organizational support, SIPD utilization tends to remain administrative rather than strategic. Overall, the literature indicates that SIPD has substantial potential to enhance regional development effectiveness through RPJMD–RKPD integration, improved planning efficiency, and higher-quality development information. Nevertheless, optimizing SIPD's role depends on user acceptance, human resource quality, and institutional support. Therefore, research on SIPD effectiveness is essential to assess the extent to which the system truly functions as a strategic instrument for accelerating regional development (Zuhdan, 2025).

This study employs a descriptive qualitative method using a conceptual–narrative literature review approach. This approach aims to integrate information system theories with public policy frameworks in order to develop an in-depth understanding of the effectiveness of the Regional Government Information System (*Sistem Informasi Pemerintahan Daerah* – SIPD). The analytical narrative is constructed through the synthesis of data derived from regulatory documents, prior academic studies, and regional government performance reports to describe the phenomenon of technology implementation within public sector bureaucracy. The primary legal foundations of this analysis are Ministry of Home Affairs Regulation Number 70 of



2019 concerning the Regional Government Information System and Ministry of Home Affairs Regulation Number 77 of 2020 concerning the Technical Guidelines for Regional Financial Management. These regulations mandate all local governments to integrate data from the planning stage through accountability and reporting processes within a single national platform to ensure transparency and accountability in regional governance. Data collection techniques employed in this study include document analysis and content analysis. The data sources consist of official regional development documents, particularly planning documents such as the Regional Government Work Plan (RKPD) and financial documents including the Regional Revenue and Expenditure Budget (APBD). Data analysis is conducted through three main stages: data reduction, descriptive data presentation, and conclusion drawing. The analysis is guided by the Technology Acceptance Model (TAM), which emphasizes perceived usefulness and perceived ease of use as key determinants of technology acceptance. The conceptual framework of this study positions SIPD as a technological variable influenced by user acceptance factors as explained in TAM. The effectiveness of SIPD is assessed based on its ability to generate accurate and reliable data to support strategic decision-making in regional development. When the system is perceived by government officials as both useful and easy to use, the integration between planning and budgeting documents is expected to improve, thereby enhancing the effectiveness of regional development governance.

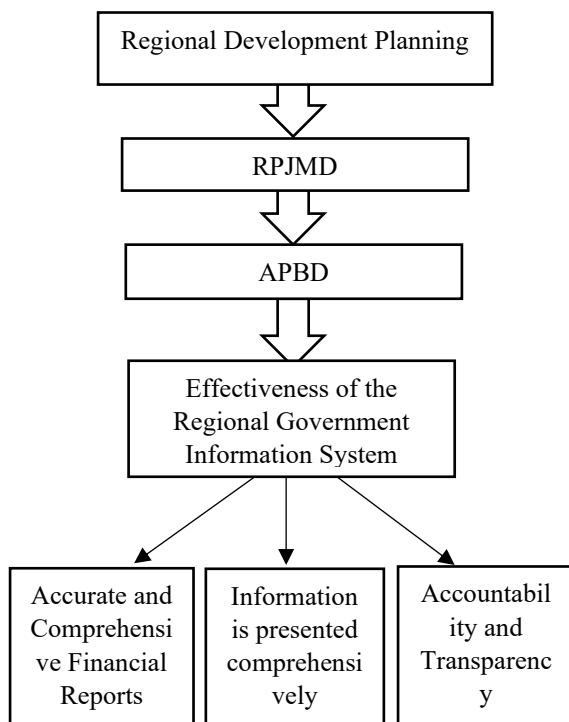


Figure 1. Diagram Conceptual Framework

Table 1. Operational Definitions

NO	ITEM	DEFINITION
1.	Regional Development Planning	The process of formulating stages of activities that involve various stakeholders in order to utilize resources to enhance public welfare.
2.	RPJMD (Regional Medium-Term Development Plan)	A regional strategic planning document for a five-year period that outlines the vision, mission, and development policy directions of the regional head.
3.	APBD (Regional Revenue and Expenditure Budget)	An annual regional financial plan that serves as the primary source of funding for the implementation of government administration and development activities.
4.	Effectiveness of the Regional Government Information System (SIPD)	The extent to which the information system is able to integrate planning, budgeting, and reporting data in a consistent and data-driven manner.
5.	Accurate and Comprehensive Financial Reports	The final output of the regional financial administration process through SIPD, presenting budget realization data in a timely manner.
6.	Comprehensively Presented Information	The availability of a comprehensive database within SIPD to support strategic decision-making by the central government, local governments, and the public.
7.	Accountability and Transparency	The principle of information openness and accountability in the use of public budgets that can be accessed by the wider public.

#### D. Data Analysis Techniques

The data analysis technique employed in this study is descriptive qualitative analysis using a content analysis approach. The analysis is conducted on various secondary data sources obtained through document review, including regulations related to the Regional Government Information System (*Sistem Informasi Pemerintahan Daerah* – SIPD), regional planning and budgeting documents (RPJMD, RKPD, and APBD), as well as findings from previous studies relevant to information system effectiveness and the application of the Technology Acceptance Model (TAM).

The data analysis process is carried out through three main stages.

##### 1. Data reduction

in which the researcher selects, focuses, and simplifies data obtained from various literature sources and official documents. Data relevant to SIPD effectiveness, the integration of planning and budgeting, and user acceptance factors based on TAM (perceived usefulness and perceived ease of use) are retained, while irrelevant data are excluded.

##### 2. Data presentation

where the reduced data are systematically presented in the form of descriptive and narrative explanations. Data are organized based on research themes, such as the role of SIPD in integrating

RPJMD and RKPD, the effectiveness of SIPD in supporting transparency and accountability, and user acceptance of SIPD within the TAM framework.

### 3. Conclusion drawing and verification

which involves interpreting the presented data to draw conclusions regarding the effectiveness of SIPD in regional development. Conclusions are derived by linking analytical findings with TAM theory and relevant regulations, particularly Ministry of Home Affairs Regulation Number 77 of 2020. Verification is conducted through cross-referencing multiple literature sources to ensure the consistency and validity of the research findings.

Through these data analysis techniques, the study is expected to provide a comprehensive overview of SIPD effectiveness as an integrated information system, as well as the factors influencing its utilization in supporting effective, transparent, and accountable regional development.

## III. RESULTS AND DISCUSSION

The effectiveness of the Regional Government Information System (Sistem Informasi Pemerintahan Daerah – SIPD) in supporting the preparation of regional financial reports is a logical consequence of the implementation of an integrated information system as mandated by Ministry of Home Affairs Regulation Number 77 of 2020. SIPD is designed to integrate the entire cycle of regional financial management, from planning and budgeting to implementation, reporting, and financial accountability. Through this integration, SIPD is expected to reduce data fragmentation among Regional Apparatus Organizations (OPD) and enhance the quality of regional financial reports. Conceptually, the effectiveness of an information system is measured by its ability to produce accurate, relevant, timely, and decision-useful information (Laudon & Laudon, 2020). In the public sector context, the quality of financial information is a key element in realizing accountability and transparency in regional financial management (Mardiasmo, 2018; Halim & Kusufi, 2019). The implementation of SIPD supports these principles by providing an integrated database that links development planning documents with budget realization and regional financial reporting.

The discussion indicates that financial data integration is a primary indicator of SIPD effectiveness. The integration of RPJMD, RKPD, KUA–PPAS, APBD, and budget realization reports within SIPD minimizes discrepancies between financial planning and reporting. This finding is consistent with Sari and Nugroho (2021), who argue that integrated local government information systems significantly contribute to improving transparency and accountability in regional financial reporting. With integrated data, financial reports function not merely as administrative documents but also as

reflections of the achievement of regional development objectives.

The effectiveness of SIPD in regional financial reporting is further reflected in the coherence of the financial data generated by the system. SIPD integrates RPJMD, RKPD, KUA–PPAS, APBD, and budget realization data into a single national database, thereby reducing data fragmentation across OPD units, which has long been a major cause of inconsistencies between planning and financial reporting. This is in line with Halim and Kusufi (2019), who emphasize that the quality of public sector financial reports is strongly influenced by the consistency and reliability of government accounting information systems. In addition to data integration, consistency between planning and financial reporting represents a crucial dimension of SIPD effectiveness. Dwiyanto (2016) highlights that weak consistency between planning and budgeting is one of the main causes of poor regional financial performance. SIPD functions as a control mechanism that ensures every reported budget realization is grounded in clear and measurable planning documents. Consequently, regional financial reports generated through SIPD can be used as objective instruments for evaluating regional development performance.

From the perspective of efficiency and reporting timeliness, the utilization of SIPD facilitates faster preparation of regional financial reports through automated and real-time data retrieval mechanisms. This aligns with Heeks (2006), who argues that e-government implementation can enhance bureaucratic efficiency and reduce administrative burdens in public financial management. Such efficiency positively affects the timeliness of regional financial reporting and improves the reliability of financial information provided to stakeholders.

When analyzed using the Technology Acceptance Model (TAM), the effectiveness of SIPD in producing high-quality regional financial reports is strongly influenced by the level of user acceptance. Davis (1989) explains that information system usage is shaped by perceived usefulness and perceived ease of use. In the context of SIPD, local government officials are more likely to utilize the system optimally when they perceive that SIPD simplifies the preparation of financial reports, improves data accuracy, and supports budget realization monitoring. This finding is consistent with Pratama and Rahman (2022), who demonstrate that user acceptance is a key determinant of successful SIPD implementation in regional financial management. Nevertheless, the discussion also reveals that SIPD effectiveness has not yet been fully optimized due to limitations in human resource capacity and ongoing system updates. Limited technological competencies among government officials may hinder optimal SIPD utilization, as noted by Setyawan (2023) in his study on SIPD-based financial reporting. Therefore, continuous capacity building and institutional support

are essential prerequisites for maintaining the quality of regional financial reports generated through SIPD.

Overall, the findings and discussion confirm that SIPD is effective in improving the quality of regional financial reports through data integration, consistency between planning and reporting, process efficiency, and enhanced transparency and accountability. These findings reinforce the view that SIPD is not merely an administrative tool but a strategic e-government instrument that supports effective regional financial governance and development-oriented performance (Mardiasmo, 2018; Laudon & Laudon, 2020).

#### IV. CONCLUSION

The Regional Government Information System (Sistem Informasi Pemerintahan Daerah – SIPD) plays a strategic role in supporting the effectiveness of regional development through the integration of planning, budgeting, and regional financial reporting. Key issues highlighted in this study—namely data fragmentation, inconsistencies between the Regional Medium-Term Development Plan (RPJMD) and the Regional Government Work Plan (RKPD), as well as weak transparency and accountability—underscore the urgency of implementing an integrated information system as mandated by Ministry of Home Affairs Regulation Number 77 of 2020. Furthermore, SIPD effectiveness is determined not only by technical system aspects but also by user acceptance, as explained by the Technology Acceptance Model (TAM). Perceived usefulness and perceived ease of use are critical factors influencing the utilization of SIPD by local government officials. In addition, the regional development planning literature emphasizes that integration between RPJMD and RKPD is a fundamental prerequisite for achieving consistent, data-driven planning oriented toward regional development objectives. The descriptive qualitative research method employed in this study, using a conceptual–narrative literature review approach, enabled the synthesis of various theories, regulations, and previous research findings to develop an in-depth understanding of SIPD effectiveness. The analysis was conducted using the TAM framework, which positions SIPD as a technological variable influenced by user acceptance and evaluates its effectiveness based on its ability to generate accurate, integrated data that support strategic decision-making in regional development.

The discussion results indicate that SIPD is effective in improving the quality of local government governance, particularly in terms of data

integration, consistency between planning and financial reporting, bureaucratic process efficiency, and enhanced transparency and accountability. The integration of RPJMD, RKPD, APBD, and regional financial reports into a single national database reduces data fragmentation among Regional Apparatus Organizations (OPD) and strengthens planning and budgeting control functions. However, SIPD effectiveness has not yet been fully optimized due to limitations in human resource capacity, technological infrastructure readiness, and the dynamic nature of system updates that require continuous adaptation by local government officials. Overall, this study confirms that SIPD is not merely an administrative tool but a strategic e-government instrument that plays a vital role in realizing effective, transparent, and accountable regional development. Optimizing SIPD utilization depends heavily on system quality, user acceptance, and strong institutional and leadership support. By strengthening these aspects, SIPD has significant potential to serve as a foundational platform for accelerating and sustaining data-driven regional development.

#### V. RECOMMENDATIONS

Based on the research findings and discussion regarding the effectiveness of the Regional Government Information System (Sistem Informasi Pemerintahan Daerah – SIPD) in supporting regional development, local governments are recommended to strengthen human resource capacity through continuous training and technical assistance. Enhancing the competence of government officials is required not only in terms of the technical operation of SIPD but also in developing a conceptual understanding of the importance of integrating planning, budgeting, and regional financial reporting. With improved capacity, local government officials are expected to develop positive perceptions of the usefulness and ease of use of SIPD, enabling optimal and sustainable system utilization.

In addition, local governments need to reinforce institutional coordination and commitment among Regional Apparatus Organizations (OPD), particularly between the Regional Development Planning Agency (BAPPEDA), the Regional Financial and Asset Management Agency (BPKAD), and other technical OPDs, to ensure consistency and integration of planning and budgeting data. Strong commitment from regional leadership is essential to encourage the use of SIPD not merely as an administrative tool but as a strategic instrument for data-driven, transparent, and accountable regional development decision-making.

Local governments are also advised to continuously improve and maintain information technology

infrastructure supporting SIPD implementation, including stable internet connectivity, adequate hardware, and responsive technical support services. Reliable infrastructure will enhance user convenience and confidence in accessing SIPD, particularly during critical periods of planning, budgeting, and financial reporting. Furthermore, SIPD utilization should be optimized as a means of enhancing public transparency by providing accessible and comprehensible information on regional planning and financial data to the public. Such information openness is expected to improve local government accountability and strengthen public trust in development processes and outcomes. Finally, future research is recommended to adopt empirical approaches involving field data and case studies of specific local governments to allow for a more in-depth and contextual analysis of SIPD effectiveness in accordance with local implementation conditions.

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