

Data and Information Center Planning: the Role of SIPD RI in Achieving Effective and Transparent Governance

Halit Faisal

Ministry of Home Affairs of the Republic of Indonesia

ABSTRACT: *The Regional Government Information System of the Republic of Indonesia (SIPD RI) is a digital instrument developed to enhance transparency and effectiveness in regional government governance. This study aims to analyze the role of SIPD RI in improving the efficiency of regional financial management and promoting transparency in the planning and budgeting processes. The research methods used are literature review, policy analysis, and case study of the implementation of SIPD RI in several regions in Indonesia. The research findings indicate that SIPD RI can accelerate the preparation of planning documents, improve accountability, and reduce the potential for budget deviations. However, challenges such as limited human resources, technological infrastructure, and resistance to change remain obstacles in the full implementation of this system. This study also highlights a comparison before and after the implementation of SIPD RI in several regions, as well as policy implications that need to be applied to optimize the system. Therefore, strategies to improve human resource capacity, strengthen infrastructure, and improve regulations are needed to enhance the effectiveness of SIPD RI in supporting good regional governance.*

KEYWORDS: *SIPD RI, Governance, Transparency, Effectiveness, Financial Management, Government Digitalization*

I. INTRODUCTION

Effective and transparent governance has become a primary demand in the current era of digitalization. To support better governance, the Ministry of Home Affairs developed the Regional Government Information System (SIPD RI) as a key tool in the processes of planning, budgeting, and financial reporting at the regional level. SIPD RI aims to align national and regional development data into a single integrated platform.

In recent decades, digital transformation has become an essential part of governance. The digitalization of administrative processes allows governments to enhance efficiency, transparency, and accountability in managing resources and regional finances. SIPD RI serves as a solution to address challenges in regional financial management, which previously faced various obstacles such as budget misalignment, delays in financial reporting, and a lack of public information transparency.

The existence of SIPD RI is also driven by public demands for faster, more accurate, and more transparent services. With this system, regional governments can access real-time data that aids in data-driven decision-making. Moreover, SIPD RI enables the integration of national and regional policies, minimizing discrepancies in budget allocation and the implementation of development programs.

However, the effectiveness of SIPD RI implementation in various regions remains a subject of debate. Some regions have seen improvements in efficiency and transparency, while others have faced technical and administrative challenges. Issues such as the limited number of skilled human resources in technology, uneven network infrastructure, and resistance from government officials to system changes remain key barriers in SIPD RI's implementation.

In line with the development of national policies, the central government continues to encourage the acceleration of digitalization in various sectors, including governance. This policy aims not only to improve budgeting and planning efficiency but also to strengthen public trust in governance. With the presence of SIPD RI, it is hoped that each region will be able to manage finances more effectively, reduce the potential for budget misuse, and speed up the bureaucratic process, which has often been considered slow and inefficient.

This study aims to empirically assess the impact of SIPD RI and identify the factors that support or hinder the successful implementation of this system. Using a case study approach and policy analysis, this research will delve deeper into the effectiveness of SIPD RI in improving regional financial management efficiency, as well as its role in realizing more transparent and accountable governance. Additionally, this study will discuss policy recommendations that can be applied to improve the effectiveness and broader implementation of SIPD RI across Indonesia.

Through this study, it is expected that the research results can provide a more comprehensive overview of the benefits, challenges, and future development prospects of SIPD RI. Thus, the implementation of this system can continue to be refined to achieve the primary goals of creating better, more effective, and transparent governance in Indonesia.

II. CONCEPTUAL FRAMEWORK AND THEORETICAL FOUNDATIONS

The conceptual framework and theoretical foundations are essential elements in research, providing the basis for arguments and scientific justification related to the phenomenon being studied. In the context of the implementation of the Regional Government Information System (SIPD RI), an understanding of good governance, public administration digitalization, and policy implementation theories are key aspects that need to be clarified.

SIPD RI was developed as an effort to improve transparency, effectiveness, and accountability in regional financial management. However, the implementation of this system faces various challenges, such as limited human resources, technological infrastructure, and resistance to change. Therefore, understanding the concepts of good governance and digitalization is crucial for analyzing the impact and effectiveness of SIPD RI in regional governance.

2.1 Concept of Good Governance

According to the World Bank (2019), good governance includes the following key principles:

- a. **Transparency:** The openness of information to the public to ensure accountability.
- b. **Accountability:** The government is responsible for the policies and actions taken.
- c. **Public Participation:** The public can actively participate in the planning and decision-making processes.
- d. **Effectiveness and Efficiency:** Optimal use of resources to achieve government objectives.
- e. **Rule of Law:** Adherence to laws and policies that are fair.

In the context of SIPD RI, this system is expected to strengthen these principles by providing centralized, structured data that is easily accessible by various parties, including central government, regional authorities, and the general public.

2.2 The Role of Digitalization in Governance

Information technology has become a key tool in improving public administration efficiency. SIPD RI is one form of government system digitalization aimed at enhancing coordination, minimizing administrative errors, and improving information transparency for the public (Osborne & Gaebler, 1992).

With the development of information technology, digitalization has become an important instrument in improving public administration efficiency. Osborne & Gaebler (1992) stated that digitalization can reduce complex bureaucracy and enhance cross-sectoral coordination effectiveness. In the context of SIPD RI, the main benefits of government digitalization include:

- a. **Data Integration:** Aligning information from various government agencies into one platform.
- b. **Reduction of Administrative Errors:** Minimizing inconsistencies in planning and budgeting.
- c. **Increased Information Transparency:** Allowing the public and auditors to access regional financial information in real-time.

2.3 Challenges of Government Digitalization

Although digitalization offers various advantages, its implementation also faces several challenges, including:

- a. **Technological Infrastructure Gap:** Not all regions have adequate access to technology.
- b. **Human Resource Readiness:** Lack of technical skills among employees in operating digital systems.
- c. **Data Security Resilience:** Threats of data breaches or misuse due to cyberattacks.

2.4 Policy Implementation Theory

According to Grindle (1980), the success of policy implementation depends on factors such as resources, policy communication, and social-political conditions. This study will use this theory to analyze the factors of success and challenges in the implementation of SIPD RI.

III. RESEARCH METHODOLOGY

3.1 Research Approach

This study employs a qualitative approach using literature review, policy analysis, and empirical case studies of the implementation of the Regional Government Information System (SIPD RI) in several regions of Indonesia. This approach was chosen to gain an in-depth understanding of the role of SIPD RI in improving the effectiveness and transparency of regional governance.

3.2 Type of Research

The type of research used is descriptive-analytical research. The aim of this research is to describe the implementation of SIPD RI and analyze the factors that influence its effectiveness.

3.3 Data Sources

This research utilizes two types of data sources:

- a. **Primary Data:** Interviews with regional government officials involved in the implementation of SIPD RI, as well as direct observation of the system's usage.
- b. **Secondary Data:** Policy documentation, evaluation reports from the Ministry of Home Affairs, academic journals, and publications from financial oversight institutions.

3.4 Data Collection Techniques

The data will be collected through the following methods:

- a. **Literature Study:** Searching for academic journals, government reports, and regulations related to SIPD RI.
- b. **Policy Analysis:** Evaluating policies that either support or hinder the implementation of SIPD RI in various regions.
- c. **Case Study:** Analyzing the implementation of SIPD RI in several regions such as DKI Jakarta, West Java, and South Sulawesi to compare its effectiveness.
- d. **Semi-Structured Interviews:** Conducted with regional government officials and technical staff handling SIPD RI to obtain direct perspectives on the challenges and benefits of this system.

3.5 Data Analysis Techniques

The data collected will be analyzed using qualitative analysis methods in the following stages:

- a. **Data Reduction:** Selecting relevant data from various sources and organizing it into a more systematic form.
- b. **Data Presentation:** Organizing the analysis results into descriptive narratives and comparison tables.
- c. **Conclusion Drawing:** Interpreting the findings based on policy implementation theories and good governance principles.

3.6 Data Validity and Reliability

To ensure the validity and reliability of the data, this study applies triangulation techniques:

- a. **Source Triangulation:** Comparing information from various primary and secondary data sources.
- b. **Method Triangulation:** Using a combination of interviews, literature review, and policy analysis to obtain more accurate results.
- c. **Time Triangulation:** Collecting data in multiple stages to ensure consistency in the information obtained.

3.7 Research Limitations

This study has several limitations, including:

- a. **Data Access:** Not all regions have complete documentation related to the implementation of SIPD RI.
- b. **Limited Respondents:** Not all regional officials are willing to participate in in-depth interviews.
- c. **Specific Context:** The results of this study may be more relevant to regions with more advanced administrative systems compared to underdeveloped regions.

This research methodology is designed to provide a comprehensive overview of the implementation of SIPD RI in Indonesia. With the literature study, policy analysis, and case study approach, the research is expected to provide valuable insights for policymakers to improve the effectiveness of digital-based governance.

IV. Comparison Before and After the Implementation of SIPD RI:

a. DKI Jakarta

The implementation of the Regional Government Information System (SIPD) RI in DKI Jakarta has produced significant results. The speed of preparing the Regional Revenue and Expenditure Budget (APBD) increased by 30%. This indicates that SIPD RI was able to accelerate the process of planning and budgeting at the

regional level. Additionally, the implementation of SIPD RI has helped reduce administrative errors that were previously common during the planning and budgeting stages. These errors, which often hindered the smooth flow of the budget process, can now be minimized, improving efficiency and accuracy in the preparation of the regional budget.

b. West Java

In West Java, the implementation of SIPD RI successfully reduced budget discrepancies for projects by 20%. This shows that the system has helped align the budget planning and project implementation more effectively. However, there are still technical challenges in data integration between agencies. Although SIPD RI has contributed to more accurate budget planning, the biggest challenge faced is the limitation in system integration between government agencies. This has resulted in some data or information not being fully connected, which could potentially affect the smoothness of the budgeting process.

c. South Sulawesi

In South Sulawesi, the biggest challenge faced in the implementation of SIPD RI is infrastructure limitations. About 40% of areas in this province still face difficulties in accessing SIPD RI. One of the main factors contributing to this is the limited internet network and inadequate hardware in some areas. As a result, the implementation of SIPD RI has not been fully optimal, and the planning and budgeting process has been hindered. These infrastructure challenges need to be addressed to ensure that all regions can fully utilize SIPD RI, especially in terms of accessibility and connectivity.

4.1 Analysis of the Effectiveness of SIPD RI in Government Governance

The Regional Government Information System (SIPD RI) is a digital innovation designed to improve transparency, efficiency, and effectiveness in regional governance. With SIPD RI, local governments can integrate planning, budgeting, and financial reporting into one structured platform.

In this analysis, we will explore how SIPD RI provides real benefits in accelerating the planning process, enhancing budget efficiency, and integrating cross-sector data. SIPD RI offers real benefits in the following aspects:

a. Acceleration of the Planning Process

SIPD RI enables the preparation of planning and budgeting documents to be faster and more systematic. Before the implementation of SIPD RI, the preparation of documents such as the Regional Government Work Plan (RKPD) and the Regional Revenue and Expenditure Budget (APBD) often experienced delays due to lengthy manual processes and complex bureaucracy. With SIPD RI, several advantages in the planning process include:

• Automation and Standardization of Documents:

The Regional Government Information System (SIPD) RI is a digital tool developed by the Ministry of Home Affairs to improve transparency and the effectiveness of regional government management. One of the key features of SIPD is the provision of standardized formats in the planning and budgeting processes, which significantly impacts administrative efficiency and reduces potential errors in document preparation.

Before SIPD was implemented, the preparation of planning and budgeting documents in various regions was done manually with varying formats. This approach often led to discrepancies between the Regional Government Work Plan (RKPD) and the Regional Revenue and Expenditure Budget (APBD), increasing the risk of input errors, budget duplication, and inefficiencies in resource allocation. With SIPD, local governments now have access to a standardized format across Indonesia.

The provision of this standardized format allows automation during the planning, budgeting, and financial reporting stages. This automation accelerates document preparation because the data entered is automatically synchronized and integrated with the central system. For example, in DKI Jakarta, the implementation of SIPD successfully accelerated the preparation of the APBD by 30% and reduced administrative

errors caused by manual input. In West Java, SIPD reduced project budget discrepancies by 20%, although it still faces technical challenges in cross-sector data integration.

In addition to speeding up the process, the standardization of documents in SIPD also ensures policy alignment between the central and regional governments. This standardized format facilitates verification and audits because all documents are structured uniformly. As a result, the potential for data manipulation and budget deviations can be minimized. This aligns with the principles of good governance, particularly in terms of transparency and accountability. However, the implementation of document automation and standardization through SIPD still faces some challenges. One of the main obstacles is the limited human resources (HR) in some regions. Many local government employees lack the technical skills required to operate this system optimally, resulting in slow data input and processing. In South Sulawesi, about 40% of areas experience access barriers due to limited technology infrastructure, such as unstable internet networks and inadequate hardware.

To address these challenges, HR capacity building strategies are needed through regular training so that employees can understand and fully utilize the features of SIPD. Additionally, the central government needs to strengthen technology infrastructure in underserved regions to ensure that the automation process can run smoothly without technical constraints. Adjusting local regulations to align with the SIPD system is also an important step to ensure consistent and comprehensive implementation across regions.

With proper implementation, the automation and standardization of documents in SIPD RI have great potential to realize more effective, efficient, and transparent regional governance. SIPD not only speeds up and simplifies the bureaucratic process but also becomes an essential tool in preventing budget deviations and enhancing public accountability sustainably.

• **Alignment with Central Policies:**

The Regional Government Information System (SIPD) RI is designed to create effective and transparent governance by integrating all regional planning, budgeting, and financial reporting processes into one digital platform. One of SIPD's main functions is to ensure direct alignment with central policies, so regional policies can be integrated and adjusted to align with national policy directions.

Before SIPD was implemented, there were gaps in policy harmonization between the central and regional governments. The process of preparing the Regional Government Work Plan (RKPD) and the Regional Revenue and Expenditure Budget (APBD) often did not align with the National Government Work Plan (RKP) and the National Medium-Term Development Plan (RPJMN). This led to various regional programs running without clear coordination with national priorities. Additionally, each region used different systems and formats for document preparation, making verification and validation at the central level difficult and time-consuming.

With SIPD, national policies are automatically referenced in the preparation of regional plans and budgets. This system provides a standardized planning and budgeting framework, allowing for direct alignment with national development priorities, such as those outlined in the RPJMN, RKP, and Presidential Instructions (Inpres). Through the SIPD platform, the central government can monitor in real-time how these policies are being implemented in all regions, thereby reducing the potential for discrepancies.

For example, the implementation of SIPD in DKI Jakarta showed a 30% improvement in policy harmonization compared to the previous system. Regional policies are now directly aligned with national priority programs, such as infrastructure development, bureaucratic reform, and digital-based public services. In addition, in West Java, the use of SIPD helped reduce project budget discrepancies by 20%, as all regional programs must be verified according to central policy directions before being approved in the APBD.

SIPD also enables cross-sector data integration, allowing the central government to better coordinate among ministries and agencies in overseeing the implementation of programs at the regional level. Through this system, information on budget realization and program achievements at the regional level can be transparently accessed by the central government, facilitating data-driven policy making and decision-making.

However, policy alignment through SIPD also faces some challenges. One of the main obstacles is the difference in regulations at the regional level, which are not fully aligned with the SIPD system. Some regional

governments face difficulties in adjusting previously prepared policies and programs to the formats and priorities set by SIPD. As a result, some planning and budgeting decisions require multiple revisions, causing delays in APBD preparation and program implementation.

To overcome these challenges, strategic measures are needed, including: 1) **Regulatory Alignment**: The central government needs to encourage the revision of regional regulations to align with the formats and policies set in SIPD, and including harmonizing sectoral policies at various government levels, 2) **HR Capacity Building**: Regular technical training for local government officials is necessary so that they can effectively understand and implement central policies through the SIPD system, 3) **Strengthening Oversight and Evaluation**: Regular audits and strict monitoring are needed to ensure that SIPD implementation aligns with the original objectives and that regional policies remain consistent with national priorities.

With the right strategy, SIPD has the potential to become the main instrument in ensuring policy alignment between regional governments and national development directions. In addition to strengthening coordination between the central and regional governments, this system also promotes transparency, accountability, and efficiency in governance across Indonesia.

- **Reduction in Time for Document Preparation**

The Regional Government Information System (SIPD) plays a crucial role in accelerating the process of preparing planning and budgeting documents at the regional level. Before the implementation of SIPD, document preparation was done manually using conventional methods, which took a significant amount of time due to the involvement of multiple administrative stages, repeated verifications, and complex inter-departmental coordination. With the digital implementation of SIPD, the entire process from input and validation to document preparation became much faster, more efficient, and accurate.

Conventional methods in the preparation of planning and budgeting documents in the regions often face various challenges. For example, data collection is done separately by each Regional Organizational Device (OPD), which is then compiled in different formats. As a result, data integration and synchronization become difficult, causing delays in the validation and completion of documents such as the Regional Government Work Plan (RKPD) and the Regional Revenue and Expenditure Budget (APBD). In addition, manual processes increase the risk of input errors, information duplication, and discrepancies between the planned and realized budgets.

With the implementation of SIPD, all these processes are automated through an integrated digital system. Data input is done directly by each OPD in a predefined format, allowing information from various sectors to be compiled in real-time in a unified platform. This system automatically validates the conformity of data with central regulations and standards, reducing the need for time-consuming manual revisions. Moreover, because the data is input digitally, processing and analysis stages can be done more quickly compared to manual methods that require repeated recording and checking.

Empirical evidence shows that SIPD can significantly reduce the time needed to prepare planning and budgeting documents. For example, in DKI Jakarta, the implementation of SIPD successfully accelerated the preparation of the APBD by up to 30% compared to previous methods. The process, which previously required weeks for validation and revisions, can now be completed in just a few days because the system allows automatic checks for data conformity. In West Java, the implementation of SIPD reduced the time needed to revise project budgets by up to 20%, thanks to the system's ability to detect discrepancies early in the data input stage.

The main advantage of SIPD in speeding up the preparation of documents also lies in the system's ability to directly integrate cross-sector data. Before SIPD implementation, coordination between the central and regional governments often required manual communication, which slowed down the synchronization process. With SIPD, policy changes at the central level can be immediately adapted at the regional level because all data is stored in a cloud-based system that can be accessed simultaneously by various stakeholders.

Although SIPD has proven to speed up the document preparation process, some regions still face technical challenges that hinder the optimization of this system. One of the main obstacles is the limited human resources (HR) who fully understand how the system works. Some regional staff still lack the technical skills

necessary to make full use of the automation features, leading to manual processes that slow down the workflow. In addition, regions with limited technological infrastructure, such as South Sulawesi, face challenges in accessing SIPD, with around 40% of areas still experiencing issues due to unstable internet connections and limited hardware.

To ensure that SIPD can maximally accelerate the preparation of documents across Indonesia, several strategic steps are required, including: 1) Continuous Human Resource Training: Enhancing the capacity of regional employees through routine training so they can utilize all available automation features in SIPD, 2) Improvement of Technology Infrastructure: The central government needs to allocate a special budget to strengthen the technology infrastructure in underdeveloped regions to ensure full access to the SIPD system, 3) Optimization of the Automatic Validation System: Ensuring that the SIPD system has comprehensive validation features to automatically detect errors throughout the document preparation process.

With consistent implementation and capacity building in all regions, SIPD can become a key pillar in accelerating the document preparation process efficiently and accurately. The success of SIPD in reducing preparation time not only improves bureaucratic effectiveness but also strengthens public accountability in regional financial management.

- **Ease of Access and Monitoring:**

The Regional Government Information System (SIPD) of Indonesia is designed to enhance transparency and accountability in financial management and to facilitate coordination between the central and regional governments. One of the key features supporting this goal is ease of access and monitoring, where both the central and regional governments can monitor planning and budgeting data in real-time. This feature allows for more accurate, faster, and efficient oversight compared to conventional methods that rely on physical documents and manual processes.

Before the implementation of SIPD, monitoring and oversight of regional policies often faced various obstacles. One of the main challenges was delays in the submission of reports from regions to the center due to the use of manual systems or unintegrated applications. This process not only took a long time but also increased the risk of data loss or information manipulation. Furthermore, the lack of direct access to data made it difficult for the central government to quickly evaluate budget realization and program implementation in the regions.

With the implementation of SIPD, planning and budgeting data are integrated into a single cloud-based digital platform that allows simultaneous access for various stakeholders. The central government can monitor program implementation in all regions directly without waiting for physical reports or manual verification processes. Similarly, regional governments have full access to applicable national policies, enabling better synchronization in preparing Regional Government Work Plans (RKPD) and Regional Revenue and Expenditure Budgets (APBD).

The main advantage of this access and monitoring feature is its ability to provide accurate and real-time information. For example, the implementation of SIPD in Jakarta allows the Regional Financial Management Agency (BPKD) to monitor the entire APBD preparation process directly, which speeds up the validation process and reduces the potential for administrative errors. With this system, the central government can monitor how national policies are implemented in the regions and take corrective actions if discrepancies or budget deviations are found.

In West Java, the use of SIPD allows monitoring of strategic regional projects that require cross-sectoral coordination. Through this system, the provincial government can identify early if there are delays in program implementation or budget discrepancies, enabling quick policy adjustments. SIPD also facilitates both internal and external audits, as all planning and budgeting data are stored centrally and can be accessed at any time by supervisory agencies such as the Supreme Audit Agency (BPK) and the Inspectorate.

This feature also benefits public transparency. With open (restricted) access for the public via the SIPD portal, the public can monitor the allocation of budgets and the realization of regional spending, which encourages citizen participation in overseeing regional government performance. This transparency aligns with

the principles of good governance, which demand information openness, accountability, and active community participation in the government process.

However, the implementation of this access and monitoring feature is not without challenges. One of the main obstacles is the uneven distribution of technology infrastructure across Indonesia. In some underdeveloped areas, such as in South Sulawesi, around 40% of regions still face difficulties in fully accessing the system due to unstable internet connections and limited hardware. These limitations cause barriers in effectively monitoring program implementation in regions far from the government center.

Moreover, human resource readiness also becomes a challenge in optimizing this monitoring feature. Many regional employees do not yet have the technical skills to utilize the analysis and reporting features available in SIPD. This results in inconsistent data input, which impacts the quality of information accessed by the central government.

To address these challenges and optimize ease of access and monitoring in SIPD, several strategic steps need to be taken, including: 1) Strengthening Technology Infrastructure: The central government needs to invest in improving digital infrastructure, especially in underdeveloped areas, to ensure all regions have full access to SIPD without technical disruptions, 2) Improving HR Capacity: Regular technical training for regional officials is necessary to ensure a good understanding of how to use the monitoring and data analysis features in SIPD, 3) Optimization of Analytical and Reporting Features: Further development of the analytical features in SIPD will allow for early identification of potential budget deviations or policy inconsistencies, 4) Cross-Institutional Collaboration: Strengthening collaboration between the central government, regional governments, and supervisory agencies to ensure comprehensive and transparent oversight.

With consistent implementation and appropriate policy support, the ease of access and monitoring feature in SIPD can become an essential tool to ensure more accountable, efficient, and policy-aligned regional government administration. In addition to improving the effectiveness of oversight, this system also strengthens public trust in the transparent and professional management of regional finances.

- **Faster and More Systematic Document Preparation for Planning and Budgeting:**

The Regional Government Information System (SIPD) of Indonesia serves as a digital solution to enhance the efficiency and effectiveness of the planning and budgeting document preparation process at the regional level. Prior to the implementation of SIPD, this process was done manually, involving various lengthy administrative stages, from data collection, document preparation, validation, to submitting reports to the central government. This conventional method often led to delays, data inconsistencies, and potential errors in preparing Regional Government Work Plans (RKPD) and Regional Revenue and Expenditure Budgets (APBD). With the implementation of SIPD, the document preparation process has become faster, more systematic, and digitally integrated.

One of the main factors accelerating document preparation is the standardized format provided by SIPD. This format aligns all stages, from planning, budgeting, to reporting, in one uniform system across all regions. With this standard format, local governments no longer need to prepare documents from scratch or through different versions. Each Regional Work Unit (OPD) can directly input data into the system following the established structure. This reduces the time needed to prepare documents since all information is entered into the same system and can be accessed in real-time.

Furthermore, SIPD facilitates the automation of data validation, which was previously done manually and required considerable time. The system automatically verifies the completeness and consistency of data according to national regulations, thus speeding up the evaluation phase and minimizing potential administrative errors. A validation process that used to take several weeks can now be completed in days because the system immediately identifies and notifies any inconsistencies in the data input.

A real-world example of the acceleration in document preparation through SIPD can be seen in DKI Jakarta, where the time required to prepare the APBD was reduced by up to 30%. Before SIPD was used, the APBD preparation process involved manually collecting data from various OPDs, which required repeated

coordination and time-consuming revisions. With SIPD, all OPDs can input data simultaneously on the digital platform, allowing for automatic compilation, which speeds up the document completion process.

In West Java, the implementation of SIPD successfully reduced the time for budget revision by 20%. Previously, when errors or policy changes occurred, the revision process required physical coordination and slow manual approval. With SIPD, changes can be directly input into the system, and adjustments are automatically updated in all related documents. This ensures that the documents remain accurate and consistent with the latest policies without having to redo the entire process.

The success of SIPD in accelerating document preparation is also supported by its ability to systematically integrate cross-sectoral data. Through this system, every regional policy must align with national policies, such as those outlined in the National Medium-Term Development Plan (RPJMN) and the Government Work Plan (RKP). This integration enables automatic synchronization between central and regional policies, ensuring that the preparation of RKPD and APBD is in line with the national development direction.

However, despite the various benefits of SIPD in accelerating and systematizing document preparation, implementation in some regions still faces technical and administrative challenges. In underdeveloped areas, such as South Sulawesi, about 40% of regions still experience difficulties accessing SIPD due to limited digital infrastructure, such as unstable internet connections and inadequate hardware. Additionally, the lack of technical competence among regional staff also poses a barrier to fully utilizing SIPD's automation features.

To address these challenges and optimize SIPD's function in accelerating and systematizing document preparation, several strategic steps need to be taken: 1) **Improving HR Capacity:** Routine training for regional officials in using SIPD effectively, including a deep understanding of the data input, validation, and analysis processes, 2) **Strengthening Technology Infrastructure:** Investment in digital infrastructure, especially in underdeveloped areas, to ensure stable connectivity and full access to the SIPD system, 3) **Optimizing Automatic Validation Features:** Developing more advanced automatic validation features to detect and correct errors in real-time at every stage of document preparation, 4) **Regular Monitoring and Evaluation:** Conducting periodic evaluations of SIPD implementation to ensure the system operates according to its objectives and identifying areas for improvement.

With these steps, SIPD can become a key instrument in achieving faster, more systematic, and accurate document preparation for planning and budgeting throughout Indonesia. Through an integrated digital approach, SIPD not only improves bureaucratic efficiency but also strengthens transparency and accountability in regional financial management.

• **Results of the Implementation Study of the Regional Government Information System (SIPD) in DKI Jakarta**

The implementation of SIPD in DKI Jakarta showed a significant impact in accelerating the preparation of the Regional Revenue and Expenditure Budget (APBD). With the adoption of SIPD, the speed of preparing the APBD increased by 30% compared to the conventional methods previously used. This improvement occurred because SIPD provides a digital platform that allows data input to be done directly by each Regional Work Unit (OPD) in a standardized format. Before SIPD was implemented, the APBD preparation process took a long time because it relied on manually collecting data and physical coordination between agencies, which often caused delays in document submission. With SIPD, all data can be entered and verified automatically within the system, thus speeding up the process from the initial stages to finalization.

In addition to speeding up the preparation process, SIPD implementation in DKI Jakarta also successfully reduced delays in the approval of the budget. Before SIPD, delays in APBD approval often occurred due to time-consuming revisions and data inconsistencies at various stages of planning and budgeting. With SIPD, the system automatically validates data and synchronizes central policies with regional budget plans, making the verification process faster and more accurate. The system's ability to detect input errors early reduces the need for manual revisions, which previously caused delays. Furthermore, the data integrated into the digital platform allows for more efficient coordination between the Provincial Government of DKI Jakarta and the Ministry of Home Affairs, enabling faster evaluation and approval processes compared to traditional methods.

The effectiveness of SIPD in accelerating the preparation and approval of the APBD in DKI Jakarta reflects the great potential of this system to improve bureaucratic efficiency in various regions. With faster preparation and reduced delays, the implementation of development programs can proceed on schedule, which has a direct impact on public services and the realization of regional policies. However, this success also requires adequate technological infrastructure support and skilled human resources in operating the system. In DKI Jakarta, the success of SIPD implementation is supported by good information technology readiness and routine training for regional officials. This success demonstrates that with the right strategy and full government support, SIPD can become a key instrument in enhancing efficiency and accountability in regional financial management.

b. Budget Efficiency Improvement

One of the biggest challenges in regional budget management is program duplication and inefficiencies in fund allocation. SIPD RI helps address these issues by: Identifying Budget Duplication, Optimizing Fund Usage, Reducing Potential Deviations, and Integrating with Financial Supervision. In West Java Province, the implementation of SIPD RI has proven to reduce project budget discrepancies by 20% and improve the effectiveness of managing capital and operational expenditures of local governments.

c. Cross-Sector Data Integration

One of the main benefits of SIPD RI is its ability to integrate various cross-sector data into one platform. Before the implementation of SIPD RI, data from sectors like education, health, infrastructure, and others were often fragmented, causing difficulties in cross-sector planning. Some advantages of data integration in SIPD RI include:

- **Central and Regional Policy Cohesion**
- **Better Data Accessibility**
- **Improved Accuracy in Decision Making**
- **Effectiveness in Monitoring and Evaluation**

However, the implementation of SIPD RI still faces several challenges, such as limited technological infrastructure in some underdeveloped regions and a lack of human resource readiness to operate this system optimally. Therefore, strategic steps are needed, such as regular HR training, improvement of digital infrastructure, and regulatory alignment at the regional level so that SIPD RI can operate more effectively.

4.3 Suggestions for SIPD RI Implementation and Its Implications:

a. Lack of HR Readiness Hampers Optimal Utilization of SIPD RI
Problem: Many regional employees lack sufficient technical skills to operate SIPD RI optimally.
Implications:

- Data input and processing become slow.
- Administrative errors persist even though the system is integrated.
- Lack of understanding of SIPD RI features may lead to dependency on third parties or external experts.

b. Misalignment of Regional Regulations with SIPD RI System Causes Difficulty in Policy Adjustment

Problem: Some regional regulations are not aligned with SIPD RI, making it difficult to implement in various regions.

Implications:

- Regions face challenges in aligning budget and planning policies with the new system.
- Some planning and budgeting decisions require multiple revisions, causing delays in preparing the APBD.
- Overlapping regulations create additional bureaucracy and complexity.

c. Budget Constraints for Technological Infrastructure Pose Challenges in Underdeveloped Areas

Problem: Not all regions have adequate infrastructure to run SIPD RI, especially in underdeveloped areas.

Implications:

- Technical obstacles, such as unstable internet connections and limited hardware, hinder SIPD RI's effectiveness.
- Regions with limited budgets struggle to allocate additional funds for technology upgrades and HR training.
- Differences in service quality between regions may create a gap in digital governance management.
-

V. Conclusion and Policy Recommendations

5.1 Conclusion:

SIPD RI has shown significant potential in improving the effectiveness and transparency of local government governance. However, technical, administrative, and regulatory challenges still hinder the full implementation of this system. With the right strategy, SIPD RI can become a cornerstone in the digital transformation of local governments in Indonesia, leading to better governance overall.

To ensure the successful and widespread implementation of SIPD RI, a commitment from all stakeholders, both at the central and regional levels, is required. Political support, adaptive regulations, and the enhancement of human resource competencies will be key factors in the sustainability of this system going forward. In this way, SIPD RI can play a crucial role in creating more accountable, transparent, and efficient local government operations.

5.2 Policy Recommendations

a. Human Resource Capacity Improvement

- Conduct regular technical training for local government officials to enhance skills in operating SIPD RI.
- Provide online learning modules and operational guides that can be accessed by local government employees at any time.
- Encourage cooperation with universities and training institutions to develop technology-based training curricula.

b. Strengthening Technology Infrastructure

- Allocate specific budgets for upgrading technology infrastructure in underdeveloped regions to support accessibility and connectivity of the SIPD RI system.
- Ensure stable and secure internet networks are available in all regions through partnerships with internet service providers.
- Provide suitable hardware and software that meet system requirements to support smooth management of local government data.

c. Regulatory and Policy Alignment

- Harmonize regional policies with national regulations related to the implementation of SIPD RI to avoid overlapping regulations.
- Prepare clear technical guidelines for local governments to integrate SIPD RI with other regional information systems.
- Improve coordination between the central government and regional governments in policy adjustments and monitoring SIPD RI implementation.

d. Periodic Audits and Oversight

- Conduct periodic audits of SIPD RI usage to identify technical and administrative issues early on.
- Build a transparent oversight system to prevent deviations in local data and budget management.

- Encourage public participation in monitoring the implementation of SIPD RI-based governance through interactive platforms.

e. Improving System Effectiveness and Efficiency

- Develop additional features in SIPD RI that facilitate the input, analysis, and financial reporting processes for local governments.
- Utilize artificial intelligence (AI) and data analytics technologies to enhance decision-making accuracy and speed.
- Provide responsive technical support services for local governments to address technical challenges related to SIPD RI implementation.

With the implementation of the above strategies, SIPD RI can be optimized to enhance transparency, effectiveness, and efficiency in local government governance. The success of this system requires full commitment from all stakeholders, including the central and regional governments, as well as the public who are the users of public services.

References

- [1] Grindle, M. (1980). "Policy Content and Context in Implementation." Princeton University Press.
- [2] Ministry of Home Affairs of the Republic of Indonesia. (2023). "SIPD RI Implementation Guide." Jakarta: Kemendagri.
- [3] Minister of Home Affairs Regulation No. 70 of 2019 on SIPD RI.
- [4] Financial Audit Agency (BPK). (2022). "Evaluation Report on Regional Financial Transparency."
- [5] Osborne, D., & Gaebler, T. (1992). "Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector." New York: Addison-Wesley.
- [6] World Bank. (2019). "Governance Indicators and Public Sector Efficiency." Washington, DC.
- [7] Setiawan, R. (2021). "Digitalization of Government and Budget Efficiency." *Public Administration Journal*, 15(2), 45-60.
- [8] Yulianto, A. (2020). "Challenges in Implementing SIPD RI in Indonesia." *Proceedings of the National Seminar on Information Technology*, 78-90.
- [9] Mardiasmo. (2019). "Public Sector Accounting." Yogyakarta: Andi Offset.